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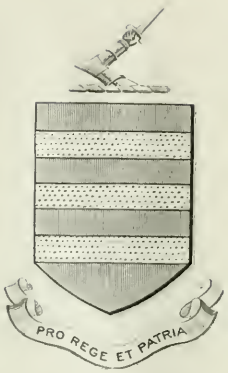

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INDEX

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THE MODERN HOSPITAL

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This index contains in a single alphabetical sequence the names of authors and subjects of all articles published in THE MODERN HOSPITAL during the six months covered by this volume. The following abbreviations indicate special departments in which articles appeared: Ab., abstract in Current Hospital Literature; Bk. Rev., Book Reviews; Corr., Letters to the Editor; Ed., Editorials; Q. and A., Queries and Answers.

A

Accounting: See also Expense.
Accounting, Hospital—Porter and Carter.....34, 111, 181, 255, 335
Accounting and Laundry Departments, Time-Savers for—Burlingham 21
Administration, Hospital, Aims and Ideals in (Ed.)—Goldwater....122
Administrative Articles—
Accounting, Hospital—Porter and Carter.....34, 111, 181, 255, 335
Accounting and Laundry Departments, Time-Savers for—Burlingham 21
Anesthesia, Department of the Royal Victoria Hospital—Howell...240
Asepsis, Medical, in French and English Hospitals—Richardson...330
Canning and Gardening for the Mentally Sick—Clark.....321
Case Records, The Meaning of—Baldy.....178
Clinic Executive in the Out-Patient Department—Lovell.....170
Conservation in the Planning of Diets—McCollum.....147
Cooks, Women, for Hospital Kitchens.....384
Dental Service in the Hospital, The Importance of—Crocker.....328
Dental Treatment for Ward Patients—Sexton..... 43
Dispensary Admission Service and Social Service—Thornton.....278
Farming and Gardening in State Institutions—Whipp.....175
Hotel Service, Application of to the Hospital—Pettit.....238
Human Investment, Taking Stock of (Ed.).....131
Infectious Diseases, The Care of in Hospitals—Richardson.....244
Intern, Hospital, Present-Day Problem of—Hersey.....107
Intern, Role of in the Standardization of Hospitals—Allen.....318
Intern Situation in Hospitals (Ed.).....268
Laboratory, Plan for Training Nurses in—Goeckel.....422
Library, A Hospital, and Some of its By-Products—Green.....161
Living-Out Versus Living-In for the Hospital Employee.....253
Publicity, Assistance to Hospitals—Somerville.....136
Record System at the Presbyterian Hospital—Lambert..... 12
Sanitary Surveys of Institutions—Winslow.....363
Scientific Hospital Feeding—Pett.....160
Standardization, Hospital, Two Factors in—Warner.....402
Standards for Tuberculosis Sanatoriums—Bosworth..... 97
Sterilization, Certainty in—Warner.....367
Supplies, Hospital, Joint Purchase of—McGarr.....168
Supplies, Mending before Condemnation and Replenishing of—Fish 84
Talking Machine in Hospital—Chapman..... 10
Telephone Operator's Information Card—Clark..... 94
Time-Savers for the Laundry and Accounting Departments—Burlingham 21
Alcohol, Tax-Free for Hospitals..... 51
Alden Speare Memorial Hospital.....436
Alexander, Magnus W.—Cost of Health Supervision in Industry....376
Alimentation of the Sick.....403
Allen, Walter C.—Role of the Intern in the Standardization of Hospitals 318
American Hospital Association, Bulletin of....75, 151, 224, 306, 386, 472
American Hospital Conference (Ed.).....360
American Journal of Care for Cripples Becomes a Monthly.....304
American Precision Dilator.....476
American Public Health Association, Forty-Sixth Annual Meeting of 69
Americanization Work in Hospitals (Ed.)..... 45
Anesthesia, Department of, at the Royal Victoria Hospital, Montreal—Howell 240
Architectural Articles—
Beaudesert Center, Hospitals at—Robinson.....423
Benjamin Stickney Cable Memorial Hospital, Ipswich, Mass.—Stevens 158
Children's Pavilion at Sharon Sanatorium—Griffin.....176
Construction, Hospital, War-Time—Bartine.....277
Department Store, Conversion of Into a Hospital.....248
Influenza Hospital, Emergency, at Wilmington—Stadter.....458
Navy Base Hospital Overseas—Johnson and Miller.....
Naval Hospital, New York—Lung..... 81
Nurses' Home at Bennington, Vermont—Walker.....400
Respect for Individuality in Hospital Construction—Ludlow.....283
Rhode Island Hospital, The Service Building of—Hill..... 85
Royal Victoria Hospital, Montreal, Ross Pavilion of—Stevens....311
Symmes-Arlington Nurses' Home—Hill..... 26
Ward Unit, Hospital, Development of in the United States Army—Stevens 408
Window, Hinged, for Hospital Use—Butler.....416
Arlington, Mass., Symmes-Arlington Nurses' Home—Hill..... 26
Armstrong, D. B.—A Program of Clinical Activities for Towns of Approximately Twenty Thousand.....218
Army Hospitals—
Base Hospitals, Organization of, by U. S. Public Health Service..366
Base Hospital No. 1, Neuilly, France.....134
Evergreen (U. S. General Hospital No. 7), Baltimore.....188, 206
British Columbia Hospital Association Meets.....448
U. S. Debarkation Hospital No. 3.....248
U. S. General Hospital No. 7.....188
U. S. General Hospital No. 32, Chicago.....355, 436
Walter Reed Hospital, Occupational Therapy at—Baldwin.....370
Ward Unit, Hospital, Development of in the United States Army—Stevens 408
d'Arsonval High Frequency Apparatus.....154
Asepsis, Medical, in French and English Hospitals—Richardson....330
Asher, Philip—Chemistry and Toxicology for Nurses (Bk. Rev.)....301
Associations, Hospital—
Catholic Hospital Association Meets.....449
Hospitals of the Port of Embarkation.....172
Ohio Hospital Association, Fifth Annual Conference of.....174, 444
Industrial Physicians and Surgeons Meet.....448
Oklahoma Forms State Hospital Association.....447
West Virginia Hospital Association, Third Annual Session of....142
Australia, Broken Hill and District Hospital, Broken Hill.....121
Autoclaves, or High-Pressure Dressing Sterilizers Scanlan, Larson, and Clark 281

B

Bacon, Asa S.—The Heart of the Hospital..... 6
Bacteriological Incubator, Electrically Heated.....155
Bagnoli, Seaside Hospital at.....135
Baldwin, Bird T.—Helping the Wounded Soldier To "Come Back"..370
Baldy, J. M.—The Meaning of Case Records.....178
Baltimore, Health Week in.....325
Banana, Value of as a Food.....288
Bandage-Folding Machine 78
Bartine, Oliver—War-Time Planning of Hospitals.....276
Base Hospitals: See Army Hospitals and Navy Hospitals.
Beard, Mary—Public Health Nursing and the War..... 72
Beaudesert Center, Hospitals at—Robinson.....423
Beds and Bedding, Care of. (Ed.).....195
Beds, Hospital, Ratio of Equipment to (Q. & A.).....464
Belgium, An Appeal From (Ed.).....359
Belgium, Desolated, Impressions of—Sand.....316
Belgium, Suggestions for an American Foundation in—Sand.....317
Benjamin Stickney Cable Memorial Hospital, Ipswich, Mass.—Stevens 158
Benjamin Stickney Cable Memorial Hospital, Ipswich, Mass. (Ed.)..194
Bennington, Vermont, Nurses' Home at—Walker.....400
Biffi Pavilion, Scholastic Instruction of the Wounded in.....121
Blind Americans at Evergreen.....206
Blind Civilians Receive Expert Training in Massage—McCallin....466
Blind Masseurs, Success of (Ed.).....434
Blinded Soldiers, Employment of in Germany.....466
Blood-Pressure Gauge 80
Boards, Hospital, Interfering (Q. & A.)..... 61
Boards, Hospital, Unofficial Complaints From (Ed.)..... 45
Bonuses for Discharged Service Men and Women.....386
Bookkeeping: See Accounting.
Books Received for Review.....60, 144, 305
Boston, Carney Hospital.....353
Boston, The Liberty Mutual Insurance Company of.....294
Bosworth, Robinson—Standards for Tuberculosis Sanatoriums..... 97
Brainerd, Winifred—Activities To Meet Patients' Needs.....302
Bread-Slicing Apparatus 475
Briggs—Ain't It a Grand and Glorious Feelin'? (Cartoon).....361
British Hospitals, Where Our Wounded Are Cared for.....106
Broken Hill and District Hospital, Broken Hill, Australia.....121
Brookline, Mass., Children's Heart Hospital at—Morse.....406
Brush, Fred—Convalescent Hospital in War Service.....326
Buffalo Bread Slicer.....475
Building: See also Construction.
Building New Hospitals..... 62
Building, A Survey of Vital Statistics Before (Ed.).....125
Burke Foundation Convalescent Hospital in Government Service—Brush 326
Burlingham, L. H.—Time-Savers for the Accounting and Laundry Departments 21
Business Manager and Superintendent of Nurses, Duties and Responsibilities of (Q. & A.)..... 61
Butler, Charles—Hinged Windows for the Use of Hospitals.....416
Buying, Be Sure You're Right Before (Ed.).....270

C

Call Bells and Emergency Lights, Location of..... 11
Call Switch, Hospital.....393
Cambridge, Holly Ghost Hospital for Incurables.....354
Cameron, Anna M.—Red for Safety.....127
Canning and Gardening for the Mentally Sick—Clark.....320
Cannon, Ida. M.—Relation of Hospital Social Service to the Successful Treatment of Gonorrhea and Syphilis.....198
Cannon, Mary Antoinette—Smith College Training Course for Psychiatric and Medical Social Work.....435
Canteens in France.....407
Carney Hospital, Boston.....353
Carter, Herbert K. and Goldwater, S. S. Distribution of Expense—A Question of Accounting (Corr.)..... 59
Carter, Herbert K. and Porter, Charles A.—Hospital Accounting 34, 111, 181, 255, 335
Case Records: See Records, Hospital.
Castle Bacteriological Incubator.....155
Castle Rochester Electric Instrument Sterilizer.....229
Castle Sterilizing Plant 79
Cenco-Nelson High Vacuum Pump..... 78
Cesare—The Three Fears (Cartoon).....376
Chapman, Frank E.—The Dictaphone in the Hospital..... 10
Chemistry and Toxicology—Asher (Bk. Rev.).....301
Chicago, Emanuel Mandel Memorial Dispensary 261
Chicago, The Municipal Contagious Disease Hospital of the City of—Robinson 246
Chicago, U. S. General Hospital No. 32..... 355, 436
Child Labor in North Carolina—Lovejoy (Corr.).....297
Children's Hospitals—
Children's Heart Hospital at Brookline, Mass. Morse.....406
Children's Pavilion at Sharon Sanatorium—Griffin.....176
Ruptured and Crippled, Hospital for, New York—Robinson.....114
China, Judson Smith Memorial Hospital at Taiku.....263
Chinese Hospital Which Serves the Poor (Corr.)—Metcalf..... 58
Clark, J. Clement—Canning and Gardening for the Mentally Sick..320
Clark, P. F.; Larson, G. L.; and Scanlan, S. Gwyn High-Pressure Dressing Sterilizers or Autoclaves 281
Clark, Pliny O.—Telephone Operator's Information Card..... 94
Cleland, Ethel—Mural Decorations of the Indianapolis City Hospital.395

Cleveland, E. H.—Hospitals Smiles....439
Clinic Executive in the Out-Patient Department—Lovell....470
Clinic, Pay, as a Financial Asset....202
Clinical Medicine for Nurses—Ringer (Bk. Rev.)....142
Clinics: See also Dispensaries.
Closets in Private Rooms and Small Wards....62
Cobb, J. O. Re-education for Maimed and Disabled Officers and Privates....170
Codman, E. A.—Study in Hospital Efficiency as Demonstrated by the Case Report of the First Five Years of a Private Hospital (Bk. Rev.)....357
Colorado Fuel and Iron Company, Health Welfare at....57
Communicable Diseases—
Asepsis, Medical, in French and English Hospitals—Richardson..330
Infectious Diseases, The Care of in Hospitals—Richardson....244
Infectious Diseases in the Hospital, The Care of, (Ed.)....195
Municipal Contagious Disease Hospital of the City of Chicago—Robinson....246
Community Hospital for a Mill Town (Q. & A.)....464
Connell Simplified Gas and Oxygen Apparatus....229
Construction: See also Planning.
Construction, Hospital: 1918 and After—Goldwater....4
Construction, Hospital, Respect for Individuality in—Ludlow....283
Construction, Hospital, Some "Don'ts" in....472
Contagious Diseases: See Communicable.
Contagious Disease Hospital, the Municipal, of the City of Chicago—Robinson....246
Convalescent Centers—Mock....361
Convalescent Patients, Physical Exercise in the Care and Treatment of—Powell....324
Convalescents, Satisfactory Settees for—Ruhl....51
Cook County Institutions at Oak Forest....262
Cook, A Good, Requirements of....384
Cooking Utensils, Explosion of....463
Cooks, Women, for Hospital Kitchens....384
Coolidge Tube Shield and Cooling Unit....228
Country Branches for City Hospitals (Q. & A.)....137
Creche, An Indian, in Bangalore....68
Creston, Iowa, Greater Community Association at—Kepford....342
Cripple: See also Disabled and Industrial Cripple.
Cripple, The, A New Understanding of—Hoppin....465
Crippled and Disabled, Attitude of the Middle Ages Toward the—McMurtrie....164
Crippled Men, What They Are Doing for the Ford Motor Company—McLeod....1
Crippled and Ruptured, Hospital for, New York—Robinson....114
Crippled Soldiers, Training in Motor Mechanics for—McMurtrie....48
Crocker, Alfred A.—Importance of Dental Service in the Hospital..328
Cross Infection, Washing the Hands To Avoid....62
Curtis, L. R.—Living-Out Versus Living-In for the Hospital Employee....253

D

Danville and Boyle County Hospital Association—Smith (Corr.)....468
d'Arsonval: See Arsonval, d'.
Davis, E. Mildred—Problems of Southern Training Schools for Nurses....74
Davis, Michael M., Jr.—
Clinics for Venereal Disease, II....52
Dispensaries and Their Service to the Public....274
Dayton, Ohio, The Miami Valley Hospital....42
Decatur and Macon County Hospital....188
Decorations, Mural, of the Indianapolis City Hospital—Cleland....395
Delano, Jane, Death of (Ed.)....360
Delano, Jane A.—How American Nurses Helped Win the War....7
Delaware Hospital, Payment of Charges for Industrial Injuries at..144
Dental Care (Pictures from the Bureau d'Assistance a l'Enfance of the American Red Cross)....329
Dental Class, Laboratory, McHenry Hospital....464
Dental Clinics, Free, for Rural School Children....392
Dental Service in the Hospital, the Importance of Crocker....328
Dental Treatment for Ward Patients—Sexton....43
Department Heads, Give Them a Chance To Grow (Ed.)....196
de Paul, Vincent, Founder of Hospital Social Service (Ed.)—Goldwater....356
Diamond-Cutting for Disabled Soldiers....139
Dictaphone: See also Talking Machine.
Dietetics, Department of....63, 147, 213, 288, 384, 460
Dietetics—
Banana, Value of as a Food....288
Conservation in the Planning of Diets—McCollum....147
Dietitians, News Notes of....67, 140, 215, 290, 385, 463
Dietitian in Social Work—Gillett....63
Field Dietetics, Relation to Social Service, Joseph....66
Follow-Up Work, Dietary, A System of—Titus....67
Food Clinic of Michael Reese Hospital....261
Food Question, Importance of....288
Habit Versus Instinct in Eating—Greeley....289
Kitchen, Three Ways To Save in....215
Minnesota, University of, Department of Dietetics in the Hospital of Thomas....213
1918: Effect of Events of on Dietetics—Graves....19
Nurses, Dietetics for (Bk. Rev.)—Proudfit....463
Nutrition, Newer Knowledge of (Bk. Rev.)—McCollum....463
Ration, The Alimentary in Hospitals on Land and on Hospital Ships....150
Scientific Hospital Feeding—Pett....460
Dini Villa, Naples, Establishment of a Station for Heliotherapy in..142
Disabled: See also Crippled, Industrial Cripple, Occupational Therapy, and Vocational Rehabilitation.
Disabled, Industrially, Legislation for Upham....374
Disabled, International Conference on Rehabilitation of—McMurtrie 369
Disabled and Maimed Officers and Privates, Re-education for—Cobb..170
Disabled Men, Government Plans for....140
Disabled, New Era for....192
Disabled, Rehabilitation of: See also Vocational Rehabilitation and Industrial Cripple, Rehabilitation of.
Disabled, Rehabilitation of, An International Conference on....287
Disabled Soldiers, Diamond—Cutting for....139
Discharged Soldiers, Hospital Care for....284
Dispensary and Out-Patient Work, Department of....52, 143, 218, 291, 390, 470
Dispensaries—
Clinic Executive in the Out-Patient Department—Lovell....470
Clinics for Venereal Disease, II—Davis....52
Emanuel Mandel Dispensary of Michael Reese Hospital....261
Pay Clinic as a Financial Asset....302
Plant Dispensaries—Selby....217
Program of Dispensary Work in Towns of 20,000 Inhabitants—Armstrong....218
Public, Dispensaries and Their Service to—Davis....274
Savings to a Manufacturing Concern in a Plant Dispensary—Seller....377
Social Service and Dispensary Admission Service—Thornton....278
Venereal Disease Clinics in Pennsylvania (Ed.)....47
Dishwashing in Relation to the Transfer of Disease—Eckman....214
Doane, Philip Schuyler—Influenza in the Shipyards....17
Doors, Prevention of Disfiguration of....284
Drugs and Chemicals, Hospital, A Year's Review of—Thum....32

E

Eckman, Rena S. Dishwashing in Relation to the Transfer of Disease....214
Economics, Home, Special Field Work Course in....385
Economies, Five Practical....208
Editorials....44, 122, 190, 264, 356, 430
Editorial Board, Some Changes in (Ed.)....193
Efficiency, A Problem in (Ed.)....45
Eight-Hour Day for Pupil Nurses, Present Status of....381
Eight-Hour Law and California Training Schools....383
Emergency Lights and Call Bells, Location of....11
Employees, Hospital, Caring for in Times of Illness (Q. & A.)....305
Employees, Hospital, Living-Out Versus Living-In—Curtis....253
Employees, Hospital, Vacations for (Q. & A.)....305
Empyema Drainage Apparatus, Continuous....309
Engeln Coolidge Tube Shield and Cooling Unit....228
Equipment, Ratio of to Hospital Beds (Q. & A.)....464
Error Corrected (Corr.)....386
Evanston Hospital—Robinson....39
Evergreen, Blind Americans at....206
Evergreen (U. S. General Hospital No. 7), Baltimore....188
Exercise, Physical, in the Care and Treatment of Convalescent Patients—Powell....324
Exercise, Physical, in the Hospital (Ed.)....358
Exercise, Systematic, Rehabilitation Through—Gugel....322
Expense: See also Accounting.
Expense, Distribution of—A Question of Accounting—Carter and Goldwater (Corr.)....59

F

Fair Dealing, An Experiment in....145
Farming and Gardening in State Institutions—Whipp....175
Field Editors' Notebooks, From Our....42, 118, 188, 261, 353
Fire in the Hospital, The Danger of....60
Fish, Lina Stryker—Mending Before Condemnation and Replenishing of Supplies....84
Florence Nightingale (Ed.)....432
Food Clinic of the Michael Reese Dispensary....261
Food Question, The Importance of....288
Food Waste, Checking Up the, (Ed.)....196
Ford Motor Company,, What Sick and Crippled Men Are Doing for—McLeod....1
Foreign Body Localizing Instruments....228
Frank, Louis J.—Consolidation of Hospital Services....418
Frederick Douglass Memorial Hospital, Philadelphia....43
Frederick Wilcox Chapin Memorial Building of the Springfield Hospital, Springfield, Mass....189
French Government Honors Ten American Nurses....443
French Surgical Hospital at Kiev....117
Friendliness in the Hospital (Ed.)....46
Frost, Harriet—The Training of Third-Year Students in Public Health Nursing....71

G

Gas and Oxygen Apparatus, Simplified....229
Garbage, Watch To Avoid Waste (Ed.)....270
Gardening: See also Farming.
Gardening and Canning for the Mentally Sick—Clark....320
Gillett, Lucy H.—The Dietitian in Social Work....63
Goeckel, H. J.—Plan for Training Nurses in the Laboratory....422
Golden Rule in Hospitals....399
Goldwater, S. S.—
Aims and Ideals in Hospital Administration (Ed.)....122
Construction, Hospital: 1918 and After....4
Country Branches for City Hospitals (Q. & A.)....137
Health Insurance, Hospital Policy in Relation to (Ed.)....190
Pennsylvania Prepares to Reform Her Subsidy System (Ed.)....264
Social Service, Hospital, Who Started? (Ed.)....356
and Carter, Herbert K. Distribution of Expense—A Question of Accounting (Corr.)....59
Goss-Marshall Portable Needle Sterilizer....309
Goldwater, S. S.—Hospital Construction: 1918 and After....4
Goldwater, S. S.—Who Started Hospital Social Service? (Ed.)..356
Gonorrhea: See Venereal Disease.
Government Hospitals Ask for Technical Men....368
Government Plans for Disabled Men....140
Granton, Royal Naval Hospital at....28
Graves, Lulu—The effect of the Past Year's Events on Dietetics....19
Gray, Carolyn E.—A Square Deal for the Pupil Nurse....141
Greeley, Hugh Payne—Habit Versus Instinct in Eating....289
Green, Elizabeth—A Hospital Library and Some of its By-Products 161
Greenhut Building Converted into a Hospital....248

Grenfell Association—The Call of for Physicians.....254
Griffin, Walter A.—Children's Pavilion at Sharon Sanatorium.....176
Gugel, A. F.—Rehabilitation Through Systematic Exercise.....322
Gynecology for Nurses, Reference Hand-Book of—MacFarlane (Bk. Rev.).....301

H

Habit Versus Instinct in Eating—Greeley.....289
Haiti, First Training School for Native Nurses in—Jordan.....273
Handicapped: See also Disabled, Crippled, Industrial Cripple, Occupational Therapy and Vocational Rehabilitation.
Harting, J. W.—Music Takes First Place in Reconstruction Work..404
Health Insurance, Hospital Policy in Relation to (Ed.)—Goldwater 190
Health and Modern Industry, Department of..55, 144, 216, 294, 376, 453
Health Supervision in Industry: See also Industrial Cripple, Rehabilitation for—
Charges, Payment of in Industrial Injuries.....144
Colorado Fuel and Iron Co., Health Welfare at..... 57
Cost of Health Supervision in Industry—Alexander.....376
Fair Dealing, An Experiment in.....145
Health Insurance, Hospital Policy in Relation to (Ed.)—Goldwater 190
Industrial Hygiene and Medicine, Division of, of United States Labor Department, Work of.....216
Industrial Hygiene and Medicine, Progress in During the Year 1918—Patterson 31
Influenza in the Shipyards—Doane..... 17
Insurance Companies, Compensation, Relation of Hospital to—Liberty Mutual Insurance Company.....294
International Harvester Company Advocates Health Welfare....379
Norton Company, Successful Health Supervision at—Weber..... 55
Plant Dispensaries—Selby.....217
Savings to a Manufacturing Concern in a Plant Dispensary—Seller 377
Western Electric Company, Industrial Health Protection at—Robinson 378
Health Week in Baltimore.....325
Health Welfare: See Health Supervision in Industry and Social Service.
Heart of the Hospital, The—Bacon..... 6
Heliotherapy in the Dini Villa, Naples, Establishment of a Station for 142
Heliotherapy and Thalassotherapy..... 68
Hemostat, Inflatable Bag.....394
Hersey, Harold W.—The Present-Day Problem of the Hospital Intern 107
High Frequency Apparatus.....154
High Vacuum Pumps 78
Hill, Warren C.—
Service Building of the Rhode Island Hospital..... 85
Symmes-Arlington Nurses' Home..... 26
Symmes-Arlington Nurses' Home (Corr.).....297
Hints to Hospital Superintendents..... 62
Holy Ghost Hospital for Incurables, Cambridge.....354
Home Economics: See Economics, Home.
Home-Made Devices, Some Economical.....135
Hoppin, Helen L.—The New Understanding.....465
Hospital Accounting: See Accounting, Hospital.
Hospital Associations: See Associations, Hospital.
Hospital Boards: See Boards, Hospital.
Hospital Construction: See Construction, Hospital.
Hospital, Enlarging the Field of (Ed.)..... 47
Hospital Library: See Library, A Hospital.
Hospital, Medical and Special Meetings.....68, 287, 368
Hospital Policy in Relation to Health Insurance (Ed.)—Goldwater..190
Hospital Records: See Records, Hospital.
Hospital Reports: See Records, Hospital.
Hospital, Rural: See Rural Health Problems.
Hospital Smiles—Cleveland.....439
Hospital Standardization: See Standardization, Hospital.
Hospitals, Individual, Descriptions of: See also Army Hospitals, Children's Hospitals, Navy Hospitals, and Tuberculosis Hospicals.
Benjamin Stickney Cable Memorial Hospital, Ipswich, Mass.—Stevens 158
Emergency Influenza Hospital at Wayne, Pa..... 24
Evanston Hospital—Robinson 39
Ross Pavilion of the Royal Victoria Hospital, Montreal—Stevens..311
Hornsby, Dr., Leaves the Army (Ed.).....194
Hotel Service, Application to the Hospital—Pettit.....238
Howard, Dr. H. B., A Testimonial Dinner for.....442
Howard, Herbert Burr (Ed.)—Washburn.....430
Howard, Herbert Burr—J. J. Weber.....435
Howell, W. H.—Department of Anesthesia at the Royal Victoria Hospital, Montreal 240
Hospitals of the Port of Embarkation.....172
Home Care of the Sick, A Valuable Textbook on (Bk. Rev.).....212
Home Service and Rehabilitation..... 54
Human Investment, Taking Stock of (Ed.).....431
Human Machine, The Superfluous Imperfections of the (Ed.).....268
Huts, Hospital, in France—Robinson.....423
Hygiene: See also Industrial Hygiene.
Hygienic Institute of La Salle, Peru, and Oglesby, Ill.....119
Hypodermic Needles, Sterilizer for.....309

I

Illinois Social Hygiene League Extends Drive on Venereal Disease..472
Illinois Valley Hospital and Ottawa Tuberculosis Colony.....120
Illness, Caring for Hospital Employees in Times of (Q. & A.).....305
India, East, Tuberculosis Sanatorium in.....440
India, Some Hospital Problems in—Tatge (Corr.).....468
Indianapolis City Hospital, Mural Decorations of—Cleland.....395
Individual Hospitals: See Hospitals, Individual.
Industrial Cripple, Rehabilitation of: See also Health Supervision in Industry, Occupational Therapy, and Vocational Rehabilitation.
Crippled Men, What They Are Doing for the Ford Motor Company —McLeod 1
Legislation for the Industrially Disabled—Upham.....374
Industrial Hygiene and Medicine, Division of, of United States Labor Department, Work of.....216
Industrial Hygiene and Medicine, Progress in During the Year 1918—Patterson 31
Industrial Injuries: See Injuries, Industrial.
Industrial Medicine: See also Industrial Hygiene.
Industrial Medicine and Surgery, Prize for Thesis on.....379
Industrial Physicians, Names of Desired (Ed.).....125
Industrial Physicians and Surgeons, Conference of.....187
Industrial Physicians and Surgeons, Twenty Suggestions to—Selby.455
Infectious Diseases: See Communicable Diseases.
Influenza Hospital, Emergency, at Wayne, Pa..... 24
Influenza Hospital, Emergency, at Wilmington—Stadter.....458
Influenza in the Shipyards—Doane..... 17
Injuries, Industrial, Payment of Charges in.....144
Insane: See also Mental Patients.
Insane, Canning and Gardening for—Clark.....320
Insane, Hospitals for, Building Program of in New York State....135
Insane, Provision for in New Jersey State Institutions.....187
Instinct Versus Habit in Eating—Greeley.....289
Instrument Sterilizer, Electric, for Office and Dressing Rooms....229
Instruments, Hospitals Furnish (Q. & A.).....463
Insurance: See also Health Insurance.
Insurance Companies, Compensation, The Relation of the Hospital to—Liberty Mutual Insurance Company.....294
Intern, Hospital, Present-Day Problem of—Hersey.....107
Intern, Role of in the Standardization of Hospitals—Allen.....318
Intern Situation in Hospitals, (Ed.).....268
International Harvester Company Advocates Health Welfare.....379
Invalid Carrier 393
Ipswich, Mass., Benjamin Stickney Cable Memorial Hospital—Stevens 158
Italy, Professional Reeducation in.....243
It's Dogged As Does It (Ed.).....126

J

Jails, North Carolina, Sanitation of (Ed.).....125
Jeffery, Jane, Decorated for Heroism.....454
Johnson, L. W. and Miller, R. V.—A Navy Base Hospital Overseas 231
Johnson, Susan C.—Occupation Therapy.....221
Jordan, Lucia D.—First Training School for Native Nurses in Haiti 273
Joseph, Blanche M.—Relation of Field Dietetics to Social Service.. 66
Judson Smith Memorial Hospital of Taiku, China.....263

K

Kepford, A. E.—Greater Community Association at Creston, Iowa..342
Kiev, French Surgical Hospital at.....117
Kitchen, Three Ways to Save in.....215
Kollman Dilators, Pressure Indicator for.....476

L

Labor Department, United States, Work of Division of Industrial Hygiene and Medicine of.....216
Laboratory, Plan for Training Nurses in the—Goeckel.....422
Laboratories and X-Ray Apparatus, Location of (Q. & A.).....305
Lambert, Adrian V. S.—The Record System at the Presbyterian Hospital 12
Larson, G. L.; Scanlan, S. Gwyn, and Clark, P. F. High-Pressure Dressing Sterilizers or Autoclaves.....281
La Salle, Peru, and Oglesby, Hygienic Institute at.....119
La Salle County Tuberculosis Sanatorium.....121
Latchstring Out.....126, 196, 270, 434
Laundry and Accounting Departments, Time-Savers for—Burlingham 21
Laundry, Hospital, Planning for.....113
Law, The Scientific Rigors of (Ed.).....123
Lee, Scovill Patient's Bed Rest.....156
Lent, Mary E.—Public Health Work in the Sanitary Zones.....298
Letters to the Editor.....58, 296, 386, 468
Liberty Mutual Insurance Company—The Relation of the Hospital to the Compensation Insurance Companies.....294
Library, A Hospital, and Some of Its By-Products—Green.....161
Light and Heat Treatment Apparatus.....230
Lighting Fixture, Indirect, for Patient's Bed—Pettit.....106
Linen, Daily Allowance of (Q. & A.).....464
Little Journeys to Places and People Worth Knowing—Robinson 39, 114
Living-Out Versus Living-In for Hospital Employes—Curtis....253
Lost and Found Station in the Hospital..... 62
Lovejoy, Owen R.—Ten-Year Old Children Work Only Eleven Hours (Corr.) 297
Lovell, Bertha Chace—Clinic Executive in the Out-Patient Department 470
Lowman's and Pratt's Self-Retaining Retractors.....476
Ludlow, William O.—Some Lessons the War Has Taught.....283
Lunz, George A.—Hospital Construction at the United States Naval Hospital, New York..... 81

M

MacDonald, Beatrice Mary, Decorated With Distinguished Service Cross 301
MacFarlane, Catherine—Reference Hand-Book of Gynecology for Nurses 301
Machinery, Be Sure All New Is Understood..... 61
Mackenzie Ink Polygraph, American-Made.....476
Madanapalli Sanatorium 440, 469
Maimed: See also Disabled, Crippled, Occupational Therapy, and Vocational Rehabilitation.
Marine Hospitals of the United States Public Health Service (Ed.) 192

Market Garden Training Center....223
Massage, Expert Training in, Blind Civilians Receive—McCallin...466
McCallin, Mrs. Sidney—Blind Civilians Receive Expert Training in Massage....466
McCollum, E. V.—
Conservation in the Planning of Diets....147
Newer Knowledge of Nutrition (Bk. Rev.)....463
McCombs, Carl E.—The Educational Value of Hospital Reports....90
McGarr, T. E.—Joint Purchase of Hospital Supplies....168
McLeod, Norman—What Sick and Crippled Men Are Doing for the Ford Motor Company....1
McMurtrie, Douglas C.—
Attitude of the Middle Ages Toward the Sick and Disabled....164
International Conference on Rehabilitation of the Disabled....369
Training in Motor Mechanics for Crippled Soldiers....48
Mechanics, Have Your Own....269
Mecko Light and Heat Treatment Apparatus....230
Medical Asepsis: See Asepsis, Medical.
Medical Order Books, Loose-Leaf System for (Ed.)....196
Medicine: See also Industrial Hygiene and Medicine.
Memoirs of a Head Nurse....197
Mental Diseases: See Insane.
Mental Patients, Occupational Work Among—Price....50
Miami Valley Hospital, Dayton, Ohio....42
Milwaukee Infants' Hospital Resumes Work....394
Metcalf, Amy A.—A Chinese Hospital Which Serves the Poor (Corr.)....58
Michael Reese Hospital, Emanuel Mandel Memorial Dispensary of the....261
Military Hospitals: See also Army Hospitals and Navy Hospitals.
Miller, R. V. and Johnson, L. W.—A Navy Base Hospital Overseas....231
Mills, Dean Herbert E. Tells Where Vassar Training Camp Students Stand....299
Minnesota, Department of Dietetics in Hospital of University of....213
Mock, Harry E.—What's a Convalescent Center?....361
Modern Hospital Year Book (Ed.)....194
Montreal, Department of Anesthesia at the Royal Victoria Hospital—Howell....240
Montreal, Ross Pavilion of the Royal Victoria Hospital at—Stevens 311
Morse, J. H.—Children's Heart Hospital at Brookline, Mass....406
Motor Mechanics, for Crippled Soldiers, Training in—McMurtrie....48
Municipal Contagious Disease Hospital of the City of Chicago—Robinson....245
Music Takes First Place in Reconstruction Work—Harting....404

N

Navy Hospitals—
Navy Base Hospital Overseas—Johnson and Miller....231
United States Marine Hospital, Chicago—Cobb....170
United States Naval Hospital, New York—Lung....81
Neuilly, France, Base Hospital No. 1....134
Neurological Services of the Territorial Zone....117
New Instruments and Equipment....78, 154, 228, 309, 393, 475
New York, Hospital for Ruptured and Crippled—Robinson....114
North Carolina Jails, Sanitation of (Ed.)....125
Norton Company, Successful Health Supervision at—Weber....55
Nurses: See also Pupil Nurse, Training School, and Superintendent of.
Nurses, Public Health, Scholarships for....383
Nurse, The Trained, and Occupational Therapy—Upham....210
Nurses, American, How They Helped Win the War—Delano....7
Nurses, California, Standard Rates for....454
Nurses, Dietetics for (Bk. Rev.)—Proudfit....463
Nurses' Homes—
Bennington, Vermont, Nurses' Home at—Walker....400
Symmes-Arlington Nurses' Home—Hill....26, 297
Nurses' Home with Some Commendable Features (Ed.)....46
Nurses', Plan for Training of in Laboratory—Goeckel....422
Nurses, Practical, The Supply of....208
Nurses, Ten American, Honored by French Government....443
Nursing Course, Elementary, in Public Schools (Corr.)....386
Nursing, Department of....71, 141, 209, 298, 381, 451
Nursing Events, Summary of in 1918—Wheeler....29
Nursing in Families of Limited Means: The Problem (Ed.)....266
Nursing, Home, Textbook of—Harrison (Bk. Rev.)....142
Nursing, Meeting the Problem of a Reduced Staff—Riddle....73
Nursing Organizations—
Canadian Association Education....449
Michigan Nurses Meet....449
National League of Nursing Education....449
New York Meeting of Nursing....212
Nursing Problem, Sane Words on (Ed.)....357
Nursing, Professional Standards of (As Others, See Us)....209
Nursing, Public Health, Training of Third-Year Students in—Frost....71
Nursing, Public Health, and The War—Beard....72
Nursing in the Public Health Work in the Sanitary Zones—Lent....298
Nursing Question, A Nurse Speaks on (Corr.)....386
Nursing Technique, Possibilities of Standardization in—Stewart....451
Nutrition, Newer Knowledge of (Bk. Rev.)—McCollum....463

O

Oak Forest, Cook County Institutions at....262
Occupational Therapy, Vocational Re-education, and Industrial Rehabilitation....48, 139, 221, 302, 370, 465
Occupational Therapy: See also Vocational Rehabilitation.
Canning and Gardening for the Mentally Sick—Clark....321
Exercise, Physical, in the Care and Treatment of Convalescent Patients—Powell....324
Exercise, Systematic, Rehabilitation Through—Guzel....322
Individual Needs, Occupational Therapy Which Studies—Brainerd 302
Mental Patients, Occupational Work Among—Price....50
Nurse, the Trained, and Occupational Therapy....210
Occupational Therapy—Johnson....221
St. Dunstan's Hostel, The Brave, Blinded Soldiers of—Pearson..163
Shell Shock, The Occupation Cure for (Ab.)—Starr....49
Tuberculosis Patient's Attitude Toward Occupations....237
Walter Reed Hospital, Helping the Wounded Soldier To "Come Back" at—Baldwin....370
Oglesby, La Salle, and Peru, Hygienic Institute at....119
Ohio Hospital Association, Fifth Annual Conference of....174
Operating Suite, Clean Doors in the (Ed.)....270
Orientation (Ed.)....125
Ottawa, Ill., Ryburn Memorial Hospital at....120
Ottawa Tuberculosis Colony and Illinois Valley Hospital....120

P

Palmer, George T.—State Tuberculosis Sanatoriums in Illinois....128
Paris After the War (Corr.) Robinson....296
Paris, How the Great News Was Received in (Corr.)—Robinson....58
Planning: See also Construction.
Parker Invalid Carrier....393
Patients' Days in Institutions, Charging for (Q. & A.)....61
Patterson, Francis D.—Progress in Industrial Hygiene and Medicine During the Year 1918....31
Pay Clinic as a Financial Asset....202
Pearson, Sir Arthur—The Brave, Blinded Soldiers of St. Dunstan's Hostel....163
Pennsylvania Prepares to Reform its Subsidy System (Ed.)—Goldwater....264
Peru, La Salle, and Oglesby Hygienic Institute at....119
Pett, Clara G.—Scientific Hospital Feeding....460
Pettit, H. V.—
Application of Hotel Service to the Hospital....238
Indirect Lighting for the Patient's Bed....106
Philadelphia, The Frederick Douglass Memorial Hospital....43
Philips Empyema Drainage Apparatus....309
Physical Exercise: See Exercise, Physical.
Physical Reconstruction: See Occupational Therapy.
Pierce, C. C.—
Army Work Against Venereal Disease Carried on by U. S. P. H. S.128
Keeping Up the Fight....143
Venereal Disease Control....95
Pilcher Inflatable Bag Hemostat....394
Piping and Wiring, Additional, Provision for....110
Planning of Hospitals, War-Time—Bartine....277
Planning Largely (Ed.)....195
Plant Dispensary, The—Selby....217
Plessis Piquet, Sanatorium Trudeau at—Robinson....348
Polygraph, Ink, American-Made....475
Porter, Charles A. and Carter, Herbert K.—Hospital Accounting....34, 111, 181, 255, 335
Posts, Hospital, for Men From the Service (Ed.)....124
Powell, Walter D.—Physical Exercise in the Care and Treatment of Convalescent Patients....324
Pratt's and Lowman's Self-Retaining Retractors....476
Presbyterian Hospital, The Record System at Lambert....12
Price, Henrietta G.—Occupational Work Among Mental Patients..50
Proudfit, Fairfax T.—Dietetics for Nurses (Bk. Rev.)....463
Providence, Rhode Island Hospital....118
Psychiatric and Medical Social Work, Smith College Training Course for—Cannon....435
Psychiatric Social Work, Training School of....47
Public Health Men, Fellowship for....293
Public Health Nursing: See Nursing, Public Health.
Public Health Service, U. S.—
Base Hospitals, Organization of, by U. S. Public Health Service 366
Discharged Soldier, Hospital Care for Provided by U. S. P. H. S. 284
Hospital Division of U. S. P. H. S. Enlarges....325
Marine Hospitals of U. S. P. H. S. (Ed.)....192
Red Cross Supplements Work of Public Health Service in Hospitals....443
Venereal Disease, Army Work Against Carried on by U. S. P. H. S.—Pierce....128
Venereal Disease, Measures Which the U. S. P. H. S. has taken Against—Pierce....143
Venereal Disease, Program of U. S. P. H. S. Against—Pierce....95
Public Health Work in the Sanitary Zones—Lent....298
Publicity, Assistance of to Hospitals—Somerville....136
Publicity, Newspaper, Make Use of....137
Pupil Nurses, Present Status of Eight-Hour Day for....361
Pupil Nurse, A Square Deal for Gray....141
Putnam, Henry W., Memorial Hospital, Nurses' Home of—Walker..400

Q

Queries and Answers....61, 137, 305, 380, 463

R

Ration, The Alimentary, in Hospitals on Land and on Hospital Ships (Ab.)....150
Ration Plan, Monthly, Promotes Economy (Ed.)....126
Reconstruction: See also Occupational Therapy and Vocational Rehabilitation.
Reconstruction....55
Reconstruction Hospitals: See Army Hospitals and Navy Hospitals.
Reconstruction Work, Music Takes First Place in—Harting....404
Records, Hospital.
Case Records, The Meaning of—Baldy....178
Case Report of the First Five Years of a Private Hospital, A Study in Hospital Efficiency as Demonstrated by (Ed.)....358
Presbyterian Hospital, Record System at—Lambert....12
Reports, Hospital, Educational Value of—McCombs....90
Reports, Hospital, as Factors in Hospital Success (Ed.)....124
Tuberculosis Sanatoriums, Records, for Bosworth....97
Rectifier, A New Mechanical....156
Red Cross—
Conference in France....368
Death of Delano, Jane (Ed.)....360
French Government Honors Ten American Nurses....443
Home Service of American Red Cross....54
Hospitals: See Army Hospitals and Navy Hospitals.

Huts, Hospital, in France—Robinson....423
Influenza, the Fight with....443
Inter-Allied Red Cross Conference at Cannes....448
Jeffery, Jane, Decorated for Heroism....454
MacDonald, Mary Beatrice, Decorated with Distinguished Service Cross....301
Public Health Service, U. S., Work of in Hospitals Supplemented by Red Cross....443
Red for Safety—Cameron....127
Russia, North, American Red Cross in....243
Sanatorium Trudeau at Plessis Piquet—Robinson....348
Sanitation, Red Cross Promotes....308
Serbia, American Nurses Are Fighting Typhus in....399
"Sister"—A Medical Student's Story....271
Why Care for Your Teeth?—Bureau d'Assistance a l'enfance of the American Red Cross....329
Red League Becomes Illinois Social Hygiene League....472
Reeducation, Vocational: See also Occupational Therapy and Vocational Rehabilitation.
Reeducation for Maimed and Disabled Officers and Privates—Cobb..170
Reeducation, Professional, in Italy....243
Rehabilitation: See Industrial Cripple, Rehabilitation of, and Vocational Rehabilitation.
Repairs, Duplicate Requisitions for....150
Repair System, A Quick-Action (Ed.)....196
Reports, Hospital: See Records, Hospital.
Retractor, Self-Retaining, for Use in Operative Bone Work....476
Retraining, How It Is Obtained....467
Rhode Island Organizes To Control Venereal Disease....121
Rhode Island Hospital, Providence....118
Rhode Island Hospital, The Service Building of—Hill....85
Rhode Island Hospital, Service Building of (Ed.)....125
Richardson, D. L.—
Care of Infectious Diseases in Hospitals....244
Medical Asepsis in French and English Hospitals....330
Riddle, Mary M.—Meeting the Problem of a Reduced Nursing Staff 73
Roaches, Exterminating (Q. & A.)....380
Robinson, Margaret J.—
A Stranger in a Strange Land (Corr.)....296
How the Great News Was Received in Paris....58
Industrial Health Protection at the Western Electric Company..378
Little Jonreys to Places "Over There"....348, 423
Little Journeys to Places and People Worth Knowing....39, 114
Municipal Contagious Disease Hospital of the City of Chicago....246
Roentgenographic Head-Rest....310
Rome, The New Great Hospital of....121
Ross Pavilion of the Royal Victoria Hospital, Montreal—Stevens..311
Routine Is Not Training (Ed.)....123
Royal Naval Hospital, Granton....28
Royal Victoria Hospital, Montreal, Department of Anesthesia at—Howell....240
Royal Victoria Hospital, Montreal, Ross Pavilion of—Stevens....311
Rubber Gloves, A Lubricant Which Will Not Injure (Ed.)....125
Ruhl, Mary E.—Satisfactory Settees for Convalescent Use....51
Ruptured and Crippled, Hospital for, New York—Robinson....114
Rural Health Problems—
Dental Clinics, Free for Rural School Children....392
Greater Community Association at Creston, Iowa—Kepford....342
Problems of the Rural Hospital (Ed.)....359
Rural Hospital, What is the Matter With the (Ed.)....265
Russia, North, American Red Cross in....243
Ryburn Memorial Hospital, Ottawa, Ill....120

S

St. Dunstan's Hostel, The Brave, Blinded Soldiers of—Pearson..163
St. Luke's Hospital, Chicago....421
Sanatorium Trudeau at Plessis Piquet—Robinson....348
Sand, René—
Impressions of Desolated Belgium....316
Suggestions for an American Foundation in Belgium....317
Sanitation, Do Not Make It Odious....62
Sanitation, Rural, Public Edncation in....293
Sanitation, Red Cross Promotes....308
Sanitary Surveys: See Surveys, Sanitary.
Scanlan, S. Gwyn, Larson, G. L.; and Clark, P. F.—High-Pressure Dressing Sterilizers or Autoclaves....281
Selby, C. D.—
The Plant Dispensary....217
Twenty Suggestions to Industrial Physicians and Surgeons....455
Seller, J. T.—Saivngs to a Manufacturing Concern in a Plant Dispensary....377
Serbia, American Nurses Are Fighting Typhus in....399
Service Buildings, An Unusually Well-Planned (Ed.)....125
Settees, Satisfactory, for Convalescent Use—Ruhl....51
Sexton, L. A.—Dental Treatment for Ward Patients....43
Sharon Sanatorium, Children's Pavilion at—Griffin....176
Shell Shock, Occupation Cure for (Ab.)—Starr....49
Shipyards, Influenza in—Doane....17
Shoe, A Modern for a Modern Foot....439
Silver-Burnishing Machine, Automatic....78
"Sister"—A Medical Student's Story....271
Site, The Choice of....62
Small Hospitals, the Full-Time Staff in the Organization of....458
Small-Town Hospital, Organization of (Q. & A.)....380
Smith, C. N.—Danville and Boyle County Hospital Association (Corr.)....468
Smith College Training Course for Psychiatric and Medical Social Work—Cannon....435
Social Service: See also Dispensaries.
American Foundation in Belgium, Suggestions for—Sand....317
Dietetics, Field, Relation of to Social Service—Joseph....66
Dietitian in Social Work—Gillett....63
Dispensary Admission Service and Social Service—Thornton....278
Field Dietetics, Relation of to Social Service—Joseph....66
Gonorrhea and Syphilis, Relation of Hospital Social Service to the Successful Treatment of—Cannon....198
Hospital Social Service, Who Started? (Ed.)—Goldwater....356
Laboratory of Experimental Social Science, What It Might Mean to the World (Ed.)....44
Psychiatric and Medical Social Work, Smith College Training Course for—Cannon....435
Psychiatric Training School of Social Work....47
Somerville, R. S.—Assistance of Publicity to Hospitals....136
South African Military Hospital, Richmond, England....106
Springfield Hospital, Springfield, Mass., The Frederick Wilcox Chapin Memorial Building of....189
Springfield, Mass., Wesson Memorial Hospital....118
Stadter, J. M.—Emergency Influenza Hospital at Wilmington....458
Staff, Attending, and the Superintendent, Relations Between (Q. & A.)....464
Staff, Full-time, in the Organization of the Small Hospital....458
Starr, W. Allen—The Occupation Cure for Shell Shock (Ab.)....49
Standardization, Hospital—
American Hospital Conference (Ed.)....360
Case Report of the First Five Years of a Private Hospital, A Study in Hospital Efficiency as Demonstrated by—Codman (Ed.)....35
Conferences on Hospital Standardization....287
Consolidation of Hospital Services—Frank....418
Intern, Role of in the Standardization of Hospitals—Allen....318
Nursing Technique, Possibilities of Standardization in—Stewart..451
Rates, Standard, for California Nurses....454
Tuberculosis Sanatorinms, Records for—Bosworth....97
Standardization Conference, Hospital, in St. Louis....174
Standardization, the Valne and Limitations of (Ed.)....431
Two Factors in Hospital Standardization—Warner....402
Sterilization, Certainty in—Warner....367
Sterilizers, High-Pressure Dressing, or Autoclaves—Scanlan, Larson, and Clark....281
Sterilizer for Hypodermic Needles....309
Sterilizing Equipment for Small Hospitals....79
Sterilizing Plant for Small Sanatoriums (Q. & A.)....463
Stevens, Edward F.—
Benjamin Stickney Cable Memorial Hospital, Ipswich, Mass. 158
Ross Pavilion of the Royal Victoria Hospital, Montreal....311
Ward Unit, Hospital, Development of in the United States Army..408
Stewart, Isabel—Possibilities of Standardization in Nursing Technique....451
Stokes, John D.—Need of Hospital Beds for Syphilis....390
Superintendent and the Attending Staff, Relations of (Q. & A.)....464
Superintendents, Hospital, Placing Under Bond (Q. & A.)....305
Superintendent of Nurses and Business Manager, Duties and Responsibilities of (Q. & A.)....61
Supplies, Hospital, Joint Purchase of—McGarr....168
Supplies, Mending Before Condemnation and Replenishing of—Fish 84
Supply System, Establishment of Quota as Basis for (Ed.)....270
Surveys, Sanitary, of Institutions—Winslow....363
Sutton's Foreign Body Localizing Instruments....228
Switchboard as an Asset....304
Sykesville, Md., Canning and Gardening for the Mentally Sick at—Clark....321
Symmes-Arlington Nurses' Home—Hill....26, 297
Symmes-Arlington Nurses' Home (Ed.)....46
Syphilis: See also Venereal Disease.
Syphilis, Need of Hospital Beds for—Stokes....390

T

Tag-Roesch Sphygmomanometer....80
Talking Machine in the Hospital, The—Chapman....10
Tahara Automatic Silver-Burnishing Machine....78
Tatge, Agatha—Some Hospital Problems in India (Corr.)....468
Telephone Operators and Doormen Give Impression of Hospital...125
Telephone Operator's Information Card—Clark....94
Thomas, Gertrude—Department of Dietetics in the University of Minnesota Hospital....213
Thompson, Alec.—Public Health and Venereal Disease....129
Thompson, Alec. N.—What the Venereal Disease Campaign Has Done....291
Thornton, Janet—Social Service and Dispensary Admission Service 278
Thum, John K.—A Year's Review of Hospital Drugs and Chemicals 32
Titus, Beth E.—A System of Dietary Follow-Up Work....67
Training Schools, California, and Eight-Hour Law....383
Training School for Native Nurses in Haiti, The First—Jordan....273
Training School for Nurses, Problems of a Southern—Davis....74
Transfusion Agreement for Hospitals (Q. & A.)....380
Trudeau: See Sanatorium Trudeau.
Tube Shield and Cooling Unit, Coolidge....228
Tuberculosis Sanatoriums—
Children's Pavilion at Sharon Sanatorium—Griffin....176
Mandanapalli Sanatorium....440, 469
Plessis Piquet, Sanatorium Trudeau—Robinson....348
State Tuberculosis Sanatoriums, in Illinois—Palmer....128
Tycos Self-Contained Recording Thermometer....79

U

Union Hospital, Fall River, Mass....429
United States Labor Department: See Labor Department, U. S.
United States Public Health Service: See Public Health Service, United States.
Upham, E. A.—
Legislation for the Indnstrially Disabled....374
Occupational Therapy and the Trained Nurse....210
U. S. Public Health Service: See Public Health Service, U. S.

V

Vacations for Hospital Employees (Q. & A.)....305
Vassar Training Camp Students, Dean Herbert E. Mills Tells Where They Stand....299
Vassar Training Camp Students, Dr. Winslow's Advice to....301
Veneer, To Keep It from Curling (Q. & A.)....463
Venereal Disease—
Campaign, The Venereal Diseases, Results of—Thompson....291

Clinics in Pennsylvania (Ed.) 47
Clinics for Venereal Disease, II—Davis 52
Combating Venereal Disease (Ed.) 269
Control of Venereal Disease—Pierce 95
Hospital Beds, Need of for Syphilis—Stokes 390
Public Health Service Takes Over Army Work—Thompson 128
Red League Becomes Illinois Social Hygiene League 472
Rhode Island Organizes To Control Venereal Disease 121
Social Service, Hospital, Relation to the Successful Treatment of Gonorrhea and Syphilis—Cannon 198
Treatment, Keeping the Patient Under 285
Victor-Allen Roentgenographic Head-Rest 310
Vocational Re-education: See also Occupational Therapy, Rehabilitation for the Industrial Cripple, and Vocational Rehabilitation.
Vocational Rehabilitation: See also Occupational Therapy.
American Journal of Care for Cripples Becomes a Monthly 304
American Red Cross, Home Service of 54
Blind Americans at Evergreen 206
Blind Civilians Receive Expert Training in Massage—McCallin 466
Blind Masseurs, Success of (Ed.) 434
Blinded Soldiers, Employment of in Germany 466
Conference, International, on Rehabilitation of Disabled—McMurtrie 369
Convalescent Centers—Mock 361
Crippled Men, What They Are Doing for the Ford Motor Company—McLeod 1
Crippled Soldiers, Training in Motor Mechanics for—McMurtrie .. 48
Dental Class, Laboratory, at McHenry Hospital 464
Diamond-Cutting for Disabled Soldiers 139
Evergreen (U. S. General Hospital No. 7), Baltimore 188
French Soldiers, Disabled, Make Cans 467
Government Plans for Disabled Men 140
Handicapped, A New Era for (Ed.) 192
Market Garden Training Center 223
Normal Men Though Blind 160
Reeducation for Maimed and Disabled Officers and Privates—Cobb 170
Retraining, How It Is Obtained 467
St. Dunstan's Hostel, The Brave, Blinded Soldiers of—Pearson .. 163
Scholastic Instruction of the Wounded in the Biffi Pavilion 121
Walter Reed Men Learn To Farm 160

W

Wainscoting That Does Not Come Off (Q. & A.) 137
Walls, Colored, Treatment of (Ed.) 126
Walter Reed Hospital, Occupational Therapy at—Baldwin 370
Walter Reed Men Learn To Farm 160
War Hospitals: See Army Hospitals and Navy Hospitals.
War, How American Nurses Helped Win—Delano 7
Ward Patients, Caring for the Clothes of 62
Ward Patients, Dental Treatment for—Sexton 43
Ward Unit, Hospital, Development of in the United States Army—Stevens 408
Warner, A. R.—
Certainty in Sterilization 367
Two Factors in Hospital Standardization 403
Washburn, F. A.—Herbert Burr Howard (Ed.) 430
Wayne, Pa., Emergency Influenza Hospital at 24
Weber, J. J.—
Herbert Burr Howard 435
Successful Health Supervision by a Manufacturing Company 55
Wesson Memorial Hospital, Springfield, Mass 118
West Virginia Hospital Association, Third Annual Session of 142
Western Electric Company, Industrial Health Protection at—Robinson 378
Wheeler, Mary C.—Summary of Nursing Events in 1918 29
Whipp, Frank Dummer—Farming and Gardening in State Institutions 175
"White Line" Universal Wristlets 230
Williams and Porter Hospitals, Tehchow, Shantung, China (Corr.)—Metcalf 58
Wilmington, Emergency Influenza Hospital at—Stadter 458
Window Heads, Make Them High Enough (Ed.) 195
Window, Hinged, for the Use of Hospitals—Butler 416
Winslow, C. E. A.—Sanitary Surveys of Institutions 363
Women, Physical Effect of Lifting Weights on 296
Wounded: See also Disabled, Crippled, Occupational Therapy, and Vocational Rehabilitation.
Wounded, Scholastic Instruction of in the Biffi Pavilion 121
Wringer, Packing 113
Wristlets for Securing Patients' Arm or Hand on the Operating Table 230

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

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WHAT SICK AND CRIPPLED MEN ARE DOING FOR THE FORD MOTOR COMPANY*

How the Ford Motor Company Solves the Most Difficult Problem Created by Physical Examination of Employees—What to Do with the Physically Unfit

By NORMAN McLEOD, in Charge of the Medical Transfer Department, Ford Motor Company, Detroit, Mich.

THE idea of caring for sick and injured men in the way which is now being done by the Ford Motor Company did not entirely originate from a philanthropic point of view, but rather through the ability of the men in charge to see that the time was approaching when it would be necessary for all concerns employing large bodies of men to take those men and place them where they could be used most efficiently. Their wisdom in this matter can be best demonstrated by a glance at the daily report of the examining doctor.

On October 10, 1918, there were examined for employment at the factory 163 men, only 37 of whom were able to pass the physical examination as O. K. Thirteen were found to have varicoceles; 36, poor eyesight; 58, flat feet; 2, heart trouble; 31, poor teeth; 14, varicose veins; 15, hernia; 1, kidney trouble; 1, club foot; 1, tuberculosis; 2, bronchitis; 1, only one eye; 1, deformed leg; 1, hemorrhoids, and one was mentally deficient.

Fig. 1. Sewing machine operated by one-legged man.

These conditions do not change materially from day to day, as, on the following day, October 11, of 185 men examined for employment, 11 had varicoceles; 23, poor eyesight; 58, flat feet; 35, poor teeth; 14, varicose veins; 14, hernia; 7, crippled hands; 4, poor hearing; 1, crippled foot; 2, crippled legs; and only 8 were able to pass the examination as being physically O. K.

Of course, the percentage of crippled men on the labor market at this time is exceptionally high on account of the fact that so many of our young and physically perfect men are at war; but, after peace is declared, these conditions should not change a great deal, since a large part of the men who return will be either sick or injured; and, in addition, a large part of our foreign labor will migrate, in response to great inducements to their former homelands,

*Note that this article pertains to what the crippled men are doing for the Ford Motor Company and not vice versa.

MATERIAL SALVAGE AND HUMAN SALVAGE

The system used in placing men is not complicated and does not differ materially from employment methods used in other factories.

When the man applies for work at the employment office, he is turned over to the exam-

Fig. 2. Tool salvage.

ining doctor, who, after examination, recommends the kind of work he is physically able to do. If he is found to be physically O. K., he is returned to the employment office, from which he is placed. If he is not found O. K., he is referred to the medical transfer department, where a detailed description of each job and operation in the entire factory is kept and so classified that it is an easy matter to place the new employee, no matter what his ailment may be. Nor are all cripples placed in any one department. Each department has its own quota, and it would be a very hard matter to find any one particular group of cripples at any time.

Of course, this does not apply to tuberculous employees, who are segregated in two different buildings, built especially for them on account of the liability of infection. These men are divided into different groups—the advanced and the moderately advanced cases. The advanced cases are men who are in such a weakened condition they are unable to stand all of the time and are quartered in a building known as the Miscellaneous Salvage. Here they sort scrap of all kinds, retap bolts, nuts, screws, studs, make wooden mats, cut glass insulators, and do numerous other small jobs which can be done by a person when seated. At the present time there are employed in this department 65 men, whose profit to the company, after paying them at the rate of $5 per day, is approximately $600 per week.

HOW TUBERCULOUS EMPLOYEES ARE HANDLED

The department for tuberculous employees was started about two years ago. At that time the working force consisted of four tuberculous men whose condition was such they were considered a menace to other employees around them and for this reason should be taken out of the factory. The doctor in charge had small hopes of their recovery and advised that they be sent to a sanatorium for treatment, but the men claimed that they could not afford it, as all had large families to support. As no building was available for them at that time, arrangements were made to place them under a tree at the edge of a grove in the rear of the factory, where they were to do light salvage work of different kinds. Three of those men are working today in the Miscellaneous Salvage and the fourth is well enough to return to his old trade (blacksmithing) in another department.

The moderately advanced tuberculous cases are quartered in what is known as the box factory or Lumber Salvage. Here all packing boxes received at the factory are knocked apart, the nails pulled, and the lumber converted into new boxes for our own shipping. There is salvaged approximately 220,000 feet (board measure) of lumber per week, the work being done by about 50 tuberculous employees, showing a profit to the company of more than $2,600 per week.

Salvage work in any large factory offers a very practical means of caring for crippled men whose

Fig. 3. Lumber salvage and box factory for employees.

infirmities render them unfit for production work where speed is required. As the majority are tradesmen of one kind or another, here the carpenter finds work at which he is familiar in replacing hammer handles, repairing shop furniture, etc.; the machinist, at reclaiming tools of every description; the shoemaker, at mending boots and shoes used about the factory, and a great many others find different kinds of work where a certain amount of skill is required. Approximately 50 old and crippled men are used at this work, and they show a profit to the com-

pany in dollars each day of an amount that runs well into four figures.

There is almost no end to the jobs which can be found for and done by crippled and sick men in any factory, providing the proper means are employed in arranging the work and placing the men. At first it looks like a costly proposition to arrange the departments to suit the men, but it has invariably proved an excellent investment, since it tends to increase the efficiency and contentment of the employees.

TURNOVER REDUCED FROM THIRTY TO THREE PER CENT

An instance may here be cited which will corroborate the above statement. In one department in the factory where the material handled was quite heavy, it was found that an average of 30 per cent of the men were applying each month for transfers to other departments. Upon investigating the trouble, it was found that most complaints came from the fact that the stock had to be lifted from the floor to the machine, and back. This resulted in lame backs, hernia, and a large amount of dissatisfaction among the men. When this fact was brought to the attention of the management, steps were immediately taken to install a system of chain falls and angle iron slides, so that the men would at no time have to lift the stock from the floor or strain themselves in any way. The result was that the percentage of men applying for transfer from this department dropped to 3 per cent, and the output was increased more than 10 per cent. This improved condition made it possible to put in that department men of slighter build, thus avoiding the necessity of getting big huskies, who were hard to find.

Fig. 4. Interior of Miscellaneous Salvage for tuberculous employees.

In the hiring of men, it is just as necessary to know their physical condition as it is to know their ability to do certain kinds of work if they are to be made one hundred per cent efficient. There is as much judgment used in hiring a toolmaker who has not demonstrated his ability to read a blue-print as there is in hiring a man without knowing his physical condition. Both are put to work under a handicap which invariably leads to trouble for themselves and everyone else, and eventually helps to swell the labor turn-over columns. There is absolutely no reason why charity should in any way be connected with the hiring of cripples, as it has been very clearly proved again and again that, if they are properly placed, they will earn just as much as any other man and sometimes a great deal more.

Fig. 5. Blind men assembling paper boxes in magneto department.

Only recently a man about 28 years of age, totally blind, was hired into the factory. At first it was intended to place him with other blind men employed in the same place, but upon investigation it was found that stock for those men was getting low and work must be found elsewhere for him. Three different jobs were soon discovered which he could do, and he was finally assigned to the stock department counting stock (bolts, nuts, etc.) for our branch shipments along with two older men. Two days later instructions were sent from the foreman of this department to transfer the two older men out of the department, as the blind man was doing the same amount of work as was formerly done by them.

If the Ford Motor Company can take those men who need work probably more than anyone else and make as much profit out of them as they do, while paying a flat-rate wage scale, why cannot other concerns who pay only what they think the man and the job is worth to them do the same thing and reap the same profits, both financially and otherwise?

I pray you very solemnly to put that idea of knowing all things in Heaven and Earth out of your hearts and heads. It is very little that we can know, either of the ways of Providence or of the laws of existence. But that little is enough, and exactly enough.—Ruskin.

HOSPITAL CONSTRUCTION: 1918 AND AFTER

Concluding with the Statement of an Organic Principle for the Guidance of Hospital Architects—The Pavilion Type, the Block Type, and the Corridor Type —Architectural Demands of the Group Hospital

By S. S. GOLDWATER, M.D., Director, Mount Sinai Hospital, New York, Former Consultant on Health and Hospitals to the Board of Estimate and Apportionment of the City of New York

THE planning and construction of hospitals for the civil population, after slowing down in 1915, 1916, and 1917, in consequence of rising prices and the scarcity of labor and materials, had come almost to a complete stop before the Government, in 1918, decided that new construction, except for war purposes, must cease altogether. In consequence of the armistice and impending peace, official hindrances have now happily been removed, and it is for the hospitals themselves to decide when hospital construction shall be renewed, and in what manner.

The need of further hospital construction in America rests upon a triple foundation. Hospital buildings are needed where there are none or where the number of available beds has never been proportionate to the needs of the population. This may be termed deficiency construction, and a comparison of hospital conditions in the North with those in the South, or those of the Middle West with those of the Far West, shows that there is still much of it to be done. In communities which at a given point in time were amply supplied, additional hospital beds are needed to keep pace with the growth in population. This may be termed growth construction, and underlying it are two distinct factors. Before the war, growth construction depended quite as much on immigration as on native increase in population. During the past four years immigration has been almost at a standstill, but the sources of the old stream have not dried up, and despite the democratization of eastern and southeastern Europe, the once familiar scenes at Ellis Island may soon be reenacted. As for native increase in population, that has gone on notwithstanding the world war, but without a corresponding growth in hospital facilities. There is, then, not only lost ground to be recovered, but new soil to be prepared for the inevitable new crop of hospital patients from overseas—the immigrants of the next decade. Finally, there are the unavoidable renewals and replacements as old hospital plants become the worse for wear and demand renovation, modernization, and replacement. Replacement construction is a large item, for many of the hospitals that were built before 1900 are not structures of an enduring character, and the majority of them require or will require replacement within from thirty to forty years of the date of erection.

The great center of hospital construction during 1918 was the medical department of the army. In the army, temporary construction prevailed. The type of ward which the army favored during the early months of the war presented no important novelties either in plan or in execution. Two rows of beds, service rooms at one end of the ward, a covered porch along one entire side, a window for each two beds, wood construction—such was the ward. Details of some of the earlier models which proved unsatisfactory, such as inadequate provision for the disposal of sewage and waste, walls devoid of inner lining or of air spaces, the absence of central heating plants, necessitating the introduction of objectionable stoves into the ward, and the absence of quiet rooms, which was very keenly felt, were soon reported and in due course rectified.

During the last months of the war a new ward type came into being, the keynote of which was rigid economy of space, labor, and material. The new ward contained four rows of beds, two rows adjoining the windows and two rows in the interior; an upper story was added, making the new unit one of a hundred beds—a big jump from the previous twenty-six. A ward holding four rows of beds, having a width of more than forty feet, a ceiling height of only ten or eleven feet, darkened along one whole side by the roof of a twelve-foot porch—darkened, furthermore, along half the opposite side by a ramp which serves as a means of entrance to and egress from the second story, is not a model to be justified on any ground except that of military necessity. To answer the question whether military necessity compelled the construction of such a ward, the War Department finally appointed a committee of three experienced architects, but this was not done until the end of the summer of 1918. Realizing that the army was practical rather than idealistic in its hospital conceptions and that there must be no departure from the most rigidly economical rule of construction, this committee set itself the task of taking the given units of material and labor, and of ascertaining whether, without greater expenditure, a better hospital

ward could be produced. The conclusions of this committee are not accessible to the present writer, nor is it known whether the recommendations of the committee, if there were any, met with the approval of the War Department. But, taking into consideration the known facts, it seems safe to assume that neither the theory nor the practice of hospital construction is likely to be greatly affected or advanced by the experience of the army.

As we turn from the war and face the task of permanent hospital construction under the normal conditions of peace, a new problem, which those engaged in hospital planning must have sensed but which has not yet been expressed for them or by them, presents itself. The problem is this: In precisely what manner will or should modern medicine, in which the characteristic note is group practice, influence the hospital planning of the future?

Modern or cooperative medicine predicates the general as against the special hospital. From the standpoint of group practice, the special hospital is not a hospital at all; it is only part of a hospital, a limping thing deprived of essential members, and needing the support of crutches. Cooperative medicine not only demands the general hospital rather than a group of unrelated special hospitals, but it brings to the front, as one of its essential elements, the diagnostic clinic.

It is now a generation or more since the *pavilion hospital* was created—created for quite different reasons from those which dominate modern medicine. The designer of the pavilion hospital sought to produce a hygienic unit, as hospital hygiene was then understood; his object was to prevent the spread of epidemic diseases among the entire population of the hospital. Infection was believed to be air borne; hence each ward was conceived as an island surrounded, for safety, by a sea of air. The greater the distance between groups of patients, in the several wards, the greater the presumptive margin of safety. With the introduction and application of the principle of asepsis in both medical and surgical practice, the pressing need for the pavilion hospital disappeared, but in Great Britain, Denmark, France, Italy, Germany, and Austria, spectacular pavilion hospitals had been produced which, with their spacious grandeur and in their beautiful settings of park and garden, captivated the world. America, just emerging from its isolation, with its hospital system but poorly developed, with its hospital thought not yet crystallized, and with its well-known weakness for foreign models, began to imitate the pavilion hospital at the very moment when the need for such hospitals had disappeared.

In 1870 or 1880, the widest separation of groups of patients from each other was advantageous. Today such separation, if carried to extremes, interferes with the unity, completeness, and efficiency of medical work. The argument against the pavilion hospital is no longer merely that it necessitates the construction of a basement and a roof for each ward; such construction is needlessly expensive, but there are more important issues involved. The pavilion hospital stands for decentralization, and modern or cooperative medicine is hampered by decentralization. If the pathological laboratory is one-sixth or one-eighth of a mile away from a given ward or group of wards, it will not be visited by the physicians and surgeons in attendance on those wards as frequently as it should be. Under such conditions, the diagnostic aid which the laboratory affords will not be fully utilized. Contact between men working at the bedside and men working at the microscope, contact between clinician and radiologist, between visiting physicians and visiting surgeons, between internists and general surgeons on the one hand and specialists on the other, between the visiting staff and the admitting physician, between the house staff and the social service office, are all fundamental necessities of modern practice, and such contacts are hampered and hindered in the type of hospital which, whenever they have had an opportunity to do so, many hospital architects in this country have striven to adapt from European models. If wisdom prevails, the next ten years will witness a movement in quite another direction.

At this point it seems proper to introduce a word of warning. In the literature of hospital planning, the antithesis of the pavilion hospital is the *block hospital*. It is not the purpose of the present writer to advocate a return to the block hospital. The conception of the block hospital was accidental, or at best it was based upon the desire for cheapness. The *group hospital* which is here advocated is entirely different in conception and will necessarily be quite different in execution. Modern medicine calls for cooperative or group practice, and it is upon this principle that the hospital planning of the future must rest. The hospital must be logically composed, with due regard for its functioning as an organic whole. Itself the product of a new idea, it must recognize the possibility of the further development of that idea and of the future appearance of newer ideas. In so far as the block hospital is a *closed* plant, while the pavilion hospital is an *open* plant capable of indefinite extension, the pavilion plan is the better of the two. The keynote of the group

hospital, wisely planned, will be facility of intercommunication. Hence, distances must be minimized; and in this respect only, the group hospital bears a certain resemblance to the block hospital, but distances must not be diminished to the point of disregarding the fundamental and essential advantages of sun and air, of modified segregation, and of flexible classification. The group hospital must be one capable of extension, and especially must it be susceptible to convenient and economical modification at many points after the completion of the original structure.

Midway between the pavilion hospital and the block hospital lies the so-called *corridor hospital.* If comparison must be made, the *group hospital* will resemble the corridor hospital more than either of the other standard types. Nevertheless, such is the nature of the idea that the group hospital of the twentieth century is bound to develop characteristics little dreamed of by those who, during the past fifty years, have written in advocacy of the corridor hospital. The motive of the corridor hospital was architectural, while the group hospital is an organic structure.

It has been said that the individual physician can no longer stand alone. It is plain to those who understand the complexities of modern medicine that, standing alone, the physician can no longer render the best possible service, but the physician may enter a hospital as a part of its organization and may still stand alone, unless the scheme of the hospital places him in the right relation to his associates. There must be not one, but many, lines of communication and intercommunication. To lay the tracks upon which group practice can most conveniently move is one of the foremost duties of the hospital architect. This, I think, is the lesson that needs to be learned as the country enters upon a new era of hospital development. It is of importance that the new principle be thoroughly grasped and consciously and intelligently applied by those who have to do with hospital planning, for through the application of this principle the value of hospitals to the community can be enhanced and the development of modern medicine promoted.

THE HEART OF THE HOSPITAL

Need to Make Allowances for Abnormal Conditions in Sick People—Importance of First Impressions Gained by the Patient—How to Extend a True Welcome

By ASA S. BACON, Superintendent of the Presbyterian Hospital, Chicago

WHILE I was riding in a streetcar the other day, two ladies sitting behind me were discussing a relative whom they had been trying to get into a hospital, but who, owing to previous experience in an institution, had flatly refused, saying "she would die first." I know nothing of the circumstances of the case, but there is food for thought for hospital workers in a remark of this kind.

One thing that we should always keep in mind is that the people with whom we deal from day to day are not in normal condition, and that occasionally a patient who is ordinarily of a beautiful disposition is a very disagreeable person while ill. The same is often true of relatives of patients.

I remember we once had a lady in one of our best private rooms, with two special nurses, under care of one of our specialists, who was of this type, and no one could please her. The medicine was all wrong, the food was abominable, the nurses were not trained properly, and finally she refused to allow the intern to enter the room. Complaints came to the superintendent almost daily. The superintendent thereupon approved various delicacies to tempt her appetite; the nurses were extremely kind and patient; the doctor did his full duty, and so did the intern by staying out of the room when she refused to see him, but she finally left the hospital in a fit of temper before the doctor gave permission for her to go. This, of course, is an extreme case, but the "heart of the hospital" finally made itself manifest in this patient, for less than a month after she left the hospital, she wrote a very nice letter to the superintendent, apologizing for the way she had acted, thanking the doctors, nurses, and others for being so kind and patient with her, and referring a friend to us for one of our best rooms. This patient became one of our close friends after she returned home and was in normal condition.

The "heart of the hospital" should not be located in one spot. It should be at the front door where the first impression by the patient is usually gained. If you have office boys, train them to be on the alert to take the newcomer's grip or offer to do something for him as soon as he steps inside the door. The girl at the information desk should greet him with a smile and an evident willingness to assist. Do not let the patient stand

around waiting; make him comfortable in an easy chair until the details of admissions are taken care of. The nurse and doctor in the examining room should tenderly examine the patient. The clerk should carefully and patiently assist in selecting accommodations. The same careful, painstaking service should be given throughout the illness of the patient.

One of the principal departments in the hospital and one where the "heart" almost centers is in the telephone operator. This is one place to which the superintendent needs to devote a great deal of attention. I called up five hospitals the other day, and in each case I waited from one-half to three minutes for an answer. Three minutes to an anxious relative or to a sick man may seem like an hour. A human life may be lost through the laxness of an operator. She should be quick, accurate, and on the alert at all times. Every hospital should be equipped with a switchboard and plenty of telephones, placed in proper places, for without them no hospital can give proper service. These means of communication are the "arteries" of the hospital.

Not only should the "heart" be in the superintendent, but it must be in all his assistants—at the front door, at the information desk, the office, the telephone, the wards, the operating rooms,—in fact, in the very air the patient breathes.

A few years ago, I had a little Norwegian maid on one of the floors. She could not speak English, but she was bright, active, and eager to learn, so the housekeeper took an interest in her and finally trained her to be a very valuable maid. One day little Lizzie was missing. After a long search, she was found in the emergency room, on her knees beside the bed of a dying woman, trying to comfort her by gently stroking her cheeks and hands. Little Lizzie could not speak English. She was only a maid, but she had the "heart of the hospital." It is this kind of a "heart" that every hospital needs.

HOW AMERICAN NURSES HELPED WIN THE WAR

Red Cross Enrollment Increases 50 Per Cent—Survey Records Nursing Power of Country—Home Nurses Respond Nobly to Influenza Epidemic and Other Emergencies —Superiority of American Nurses Now Recognized in Every Part of World

By JANE A. DELANO, Director Department of Nursing, American Red Cross

IN summing up the work that has been accomplished by American nurses during the past year, the big fact, the one that stands out with the greatest force, is the quick response of the nurses when the need for their services was clearly presented to them.

That there are not enough nurses to care for our sick and wounded soldiers—that the Surgeon-General has found it expedient to accept partially trained women to assist the nurses who are now in the service of their country—does not in any way detract from the merit of more than 32,000 trained nurses who have enrolled with the Red Cross and have declared themselves ready and waiting for service in military establishments, in public health work as Home Defense nurses, or in any other field where they may be needed. More than 19,000 of this number have been assigned to active duty with the army, the navy, the public health service, or directly under the auspices of the American Red Cross. Approximately half this number are serving in military and civilian establishments in Europe and half in the United States in the cantonments, convalescent and marine hospitals, and special hospitals for contagious diseases.

In January, 1918, the total enrollment of nurses in the Red Cross was 16,215, or double the number enrolled in April, 1917, when this country entered the war.

In June, 1918, a definite campaign to secure 25,000 graduate nurses for the army and 2,000 for the navy and American Red Cross was undertaken by the Red Cross at the requests of the Surgeons-General of the Army, Navy and Federal Public Health Service. It was estimated, also, that if the war continued on its current scale 50,000 graduate nurses would be required by July, 1919. As a result of this special effort, when the needs of the country were presented to the nurses with the force that existing conditions made imperative, enrollments increased until reports showed an average of over 2,000 graduate nurses per month enrolling in the "battalion of life," either for service in this country or abroad.

Early in August, an intensive drive was made to secure 1,000 nurses a week for eight weeks at the request of the Surgeon-General of the Army to meet pressing, immediate needs.

The problem of meeting the needs of the military and civilian populations has taxed the limited nursing resources of the country to the

utmost. It was not thought wise to withdraw nurses for military service in such large numbers that home communities would be dangerously affected, and the problem of equitable and just distribution has been made a matter of careful study.

As the shortage of nurses grew, it became obvious that the most logical thing to do was to make a survey of the nursing resources of the entire country, so that there should be no waste of material and that every woman with nursing training, whether as an attendant, a practical nurse, a nurse's aid, or one who possessed nursing knowledge to any degree, could be used to the best possible advantage, to take the places of graduate nurses and release larger numbers for active duty. The nurses were asked to cooperate in this survey and rendered very valuable assistance. This plan was put into action, and it is hoped that the survey will be so complete as to details that it will serve as a source book for future emergencies, whether of war or of peace.

The increasing appeals for nurses that have come from all sides have shown the wisdom of this course. Requests for nurses have come from the army, from the navy, from the French military hospitals, where the need for nurses is said to be desperate, from the convalescent hospitals back of the lines that must help to make our boys whole again, from our cantonments in this country, and from the 100,000,000 civilians who need care here at home.

That the nurses in France realize the privilege that is theirs to fight where our boys are fighting, and to die, if necessary, as they are dying, for the common cause of a world, is shown by the spirit in which they have met the unavoidable hardships and trials of war; and that the nurses who are doing their share here at home realize the importance of their work in the scheme of things, is indicated by the splendid stand they have made all along the line of home defense. Their work in the epidemic of Spanish influenza that swept with such appalling results over the country this past fall, carrying off almost as many people as the mowing guns in France, has brought lasting credit to the spirit of American women that helped so largely in winning the war.

The influenza epidemic offered a most striking opportunity for watching the nurses of the country get into quick action through the machinery of the Department of Nursing of the American Red Cross. Several hours after the first call for nurses reached Red Cross national headquarters, fifteen nurses were on their way to the quarantine station in the Boston Harbor, whence the first request came. Reports, by no means complete, show thousands of nurses assigned to duty during the epidemic. In the Central Division alone, more than 900 nurses and nurses' aids responded and were assigned to duty, 207 of these being sent to Camp Dodge alone. The high quality of patriotism displayed by the nurses all over the country in responding to the need is worthy of the highest praise. Many of them made the supreme sacrifice of their lives in fighting the epidemic quite as unselfishly as our soldiers are giving theirs in France.

The Home Defense nurses—those not available for active military service—were the first ones called out, because it was hoped that in this way we might avoid using the army nurses who were holding themselves available for foreign service. The splendid teamwork displayed between the Army and Navy Nurse Corps, the Federal Public Health Service, and the American Red Cross is worthy of comment. The general plan for preventing the spread of contagion and the care of the victim, provided for cooperation of the highest order between these three and other relief organizations.

Through its divisions, the Red Cross urged that local problems, as far as possible, be met by the chapters and provided for the utilization of all local nursing resources, such as graduate and undergraduate nurses, nurses' aids, school teachers (if schools were closed), and other volunteers. It also recommended the establishment of local recruiting stations in connection with the chapters to obtain this personnel. The splendid work done by the aids and volunteers during the epidemic deserves the highest praise. It measures up, with no exception, to that accomplished by those serving in Europe directly under the auspices of the Red Cross, who have proved invaluable.

To prevent one state from bidding against the other and from securing nursing personnel at the expense of another community, a standard schedule of prices was approved by the Federal Public Health Service, the Surgeons-General of the Army and Navy, and the American Red Cross. It is to the credit of the nurses of the country, that when the first appeal went out and before any appropriation had been made, over 1,500 nurses responded without inquiry, so far as we know, in regard to the rate of compensation.

American nurses, in the past year, have reacted to many similar calls to meet epidemics of disease and other disaster—for instance, the serious outbreak of typhoid fever at Muscles Shoals, Louisiana, where it was necessary to aid in the control of the epidemic by antityphoid treatment of several thousands of working men employed in a nearby munition plant. In the sudden outbreaks

of meningitis which have occurred at Newport News, Fort Riley, Hattiesburg, Camp Beauregard, and other places, nurses have promptly responded and remained until the danger of an epidemic was past. When an epidemic of typhoid fever in Alexandria, Va., endangered the health both of the increased population of the national Capitol and of the Marine camp at Quantico, nurses were again called into service to aid in the control, under the direction of the Federal Public Health Bureau. The establishment of the sanitary zones around the cantonments created a pressing need for nurses, and since their organization 177 Red Cross nurses have been assigned to duty there.

The work done by visiting public health nurses has been a valuable factor in meeting the abnormal situation produced by the conditions of war. It is noteworthy that in the first nine months of the present year—that is, before the epidemic of Spanish influenza—the Visiting Nurse Society in New York City alone paid 97,646 visits to homes needing nursing services. The Town and Country Nursing Service of the Red Cross, with its enrollment of public nurses on duty in various sections of the country, has also helped to mitigate the sufferings of people living in rural districts and small towns, where often no hospitals exist and where nurses are few and far between. They are serving in the mountain regions of the South, in Texas, and in Arizona; and frequently, with little or no assistance, they care for the health of large sections.

It is interesting to note that today there are American nurses in almost every part of the world—in war-scarred France, of course, where there are not nearly enough nurses to meet the needs, in Greece, Italy, Palestine, the Azores, Japan, China, Korea, the Balkans, Egypt, and many other countries. That their work is being recognized and appreciated is shown by the high honors that all nations are bestowing on them, the croix de guerre, special military mentions, decorations of royal orders, medals for bravery and devotion to duty. The American nurse has been acknowledged the best trained nurse in the world.

The work she has done in her connection with the various European missions sent out by the Red Cross has produced impressive results. American nurses have displayed executive ability that is quite praiseworthy, for, besides organizing the various relief work, they have established classes for the instruction of native women and are introducing sanitary measures that will undoubtedly have a lasting effect on the health of those countries. In France, our nurses have been engaged in every conceivable kind of service, in addition to that done for the military forces. They have worked among the civilian populations, in hospitals for adults and children, in sanatoriums for tuberculosis, in dispensaries, clinics and convalescent houses, and among the refugees. "Nothing is menial that means service" is the attitude with which they work, and it is an attitude which is producing results that will do much to cement international relations into a friendship that will mean permanent world peace.

SUMMARY

The enrollment from January, 1918, to November, 1918, increased more than 50 percent. The survey of the nursing resources of the entire country, it is hoped, will put on file the nursing power of America. In emergencies of all kinds, during the past year, epidemics of disease, munitions explosions, forest fires, and other disasters, the nurses have responded nobly. In the cantonments of the country they have helped to maintain the morale and physical fitness of the army, while, in military establishments abroad, American nurses have made for themselves a reputation that acknowledges them the best trained nurses in the world.

With the coming of peace, and with the return of 20,000 graduate nurses from military service, it will be possible to take up again the nursing activities which have been more or less interrupted by the insistent needs of war. First on the peace program of the Red Cross will be the further development of our Public Health Nursing and also of our courses in Home Hygiene and Care of the Sick, and Home Dietetics, so that the women of the country may be better prepared to maintain the health of the families and to care for minor illnesses in cases in which graduate nurses are not available. We believe that the experience of the nurses in France and in the cantonment hospitals in this country will have brought to them the realization of the broader opportunities awaiting them along lines of educational and community service and that the experience in public health nursing and relief work which many of them have had in European countries will especially qualify them for this work. It is hoped, therefore, that many nurses about to be released from military duty may be directed into administrative and teaching positions both in schools of nursing and in public health work, thus serving the community rather than the individual.

Give plenty of water. Don't wait until patients ask for it. You can save time by planning periods for serving all patients with water at the same time.—Marie Robertson, R. N., in The Nurse.

THE DICTAPHONE IN THE HOSPITAL

Lack of Appreciation on the Part of Medical Men of the Value of Good Case Histories—How the Dictaphone Helps Solve the Problem

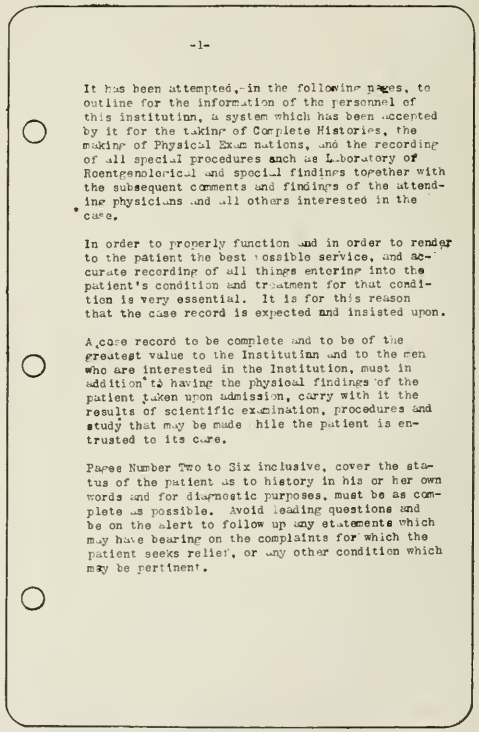
By FRANK E. CHAPMAN, Superintendent Mount Sinai Hospital, Cleveland

PERHAPS one of the greatest bugaboos in the life of a hospital administrator who is attempting to secure for his institution a complete medical history is the fact that the medical staff, both attending and resident, in a great many instances, seem to lack an understanding of what a properly written medical record means to the institution and how such a record can aid not only in the care of the individual patient to whom the record pertains, but in the treatment of future cases of a like nature. By reason of this lack of understanding, they are rather loath to spend as much time as is indicated in the preparation of these records.

It is admitted that, without question, the writing of records in longhand is rather tedious, and at some times, monotonous work, and the thought has often been expressed to me that the individual was interested primarily in taking care of his patients and not in writing records, and that he did not have time to do both.

Recognizing that the dictating machine has meant a wonderful saving in time in commercial work, it seemed to Mount Sinai Hospital that if it could conserve the time of its resident staff by the installation of these machines on the wards, such an installation could not help but react to a betterment of working conditions in the institutions. As a result, sufficient of these machines were purchased to make one available at all times to each member of the resident staff, and a medical stenographer furnished for the specific purpose of writing up these histories. The problem that then confronted us was that of educating both the attending and the resident staff to use these machines and to use them in a uniform manner, in order that a complete uniform history be secured from each patient.

Fig. 1. The dictaphone in use for taking bedside notes.



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It has been attempted, in the following pages, to outline for the information of the personnel of this institution, a system which has been accepted by it for the taking of Complete Histories, the making of Physical Examinations, and the recording of all special procedures such as Laboratory of Roentgenological and special findings together with the subsequent comments and findings of the attending physicians and all others interested in the case.

In order to properly function and in order to render to the patient the best possible service, and accurate recording of all things entering into the patient's condition and treatment for that condition is very essential. It is for this reason that the case record is expected and insisted upon.

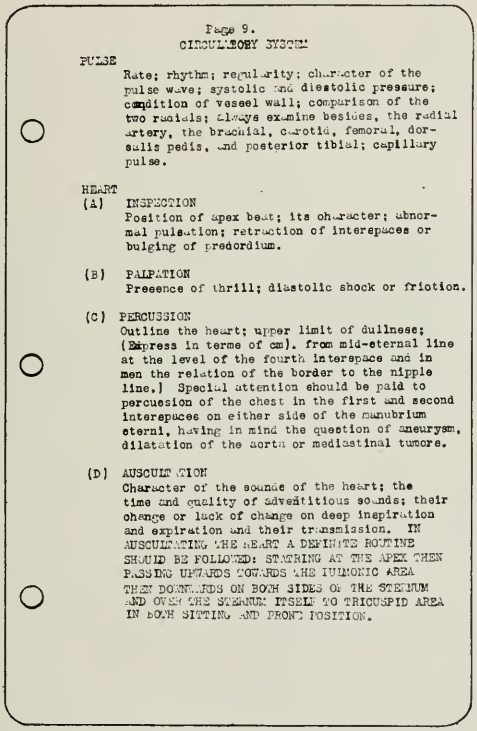
A case record to be complete and to be of the greatest value to the Institution and to the men who are interested in the Institution, must in addition to having the physical findings of the patient taken upon admission, carry with it the results of scientific examination, procedures and study that may be made while the patient is entrusted to its care.

Pages Number Two to Six inclusive, cover the status of the patient as to history in his or her own words and for diagnostic purposes, must be as complete as possible. Avoid leading questions and be on the alert to follow up any statements which may have bearing on the complaints for which the patient seeks relief, or any other condition which may be pertinent.

Fig. 2. One of the loose-leaf sheets, which, incorporated in a binder, are attached to the dictaphone.

A copy of the form of history used in several representative institutions in the country was

secured, and also each member of our staff was asked to submit what he considered pertinent information for the histories. A compilation of all of this information was submitted to the Medical Council, and a form adopted by them as the standard for history-taking at Mount Sinai Hospital. This information was then put on loose-leaf sheets, and a complete set of forms incorporated in a binder and attached on each one of the dictating machines, as illustrated (Fig. 1).



Page 9.
CIRCULATORY SYSTEM

PULSE

Rate; rhythm; regularity; character of the pulse wave; systolic and diastolic pressure; condition of vessel wall; comparison of the two radials; always examine besides, the radial artery, the brachial, carotid, femoral, dorsalis pedis, and posterior tibial; capillary pulse.

HEART

(A) INSPECTION
Position of apex beat; its character; abnormal pulsation; retraction of interspaces or bulging of precordium.

(B) PALPATION
Presence of thrill; diastolic shock or friction.

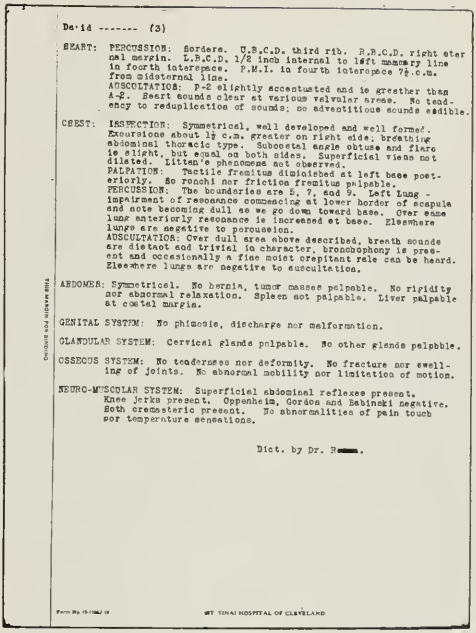
(C) PERCUSSION
Outline the heart; upper limit of dullness; (Express in terms of cm). from mid-sternal line at the level of the fourth interspace and in men the relation of the border to the nipple line.) Special attention should be paid to percussion of the chest in the first and second interspaces on either side of the manubrium sterni, having in mind the question of aneurysm, dilatation of the aorta or mediastinal tumors.

(D) AUSCULTATION
Character of the sounds of the heart; the time and quality of adventitious sounds; their change or lack of change on deep inspiration and expiration and their transmission. IN AUSCULTATING THE HEART A DEFINITE ROUTINE SHOULD BE FOLLOWED: STARTING AT THE APEX THEN PASSING UPWARDS TOWARDS THE PULMONIC AREA THEN DOWNWARDS ON BOTH SIDES OF THE STERNUM AND OVER THE STERNUM ITSELF TO TRICUSPID AREA IN BOTH SITTING AND FRONT POSITION.

Fig. 3. A loose-leaf sheet which has been used by the intern in writing up the history shown in Fig. 4.

Specimen sheets are also shown (Figs. 2 and 3) indicating the manner in which this form was compiled.

In the operating room a dictating machine is available for use in dictating operative notes and post-operative orders between operations. It was at first thought desirable to use the machine in making the regular ward walk and have the attending man dictate progress notes into the machine. But this plan has been abandoned, and instead the interne is obliged to write progress notes in longhand, the remainder of the history being typed.



Da·id ------- (3)

HEART: PERCUSSION: Borders. L.B.C.D. third rib. R.B.C.D. right sternal margin. L.B.C.D. 1/2 inch internal to left mammary line in fourth interspace. P.M.I. in fourth interspace 7½ c.m. from midsternal line.
AUSCULTATION: P-2 slightly accentuated and is greather than A-2. Heart sounds clear at various valvular areas. No tendency to reduplication of sounds; no adventitious sounds audible.

CHEST: INSPECTION: Symmetrical, well developed and well formed. Excursions about 1½ c.m. greater on right side, breathing abdominal thoracic type. Subcostal angle obtuse and flare is slight, but equal on both sides. Superficial veins not dilated. Litten's phenomena not observed.
PALPATION: Tactile fremitus diminished at left base posteriorly. No ronchi nor friction fremitus palpable.
PERCUSSION: The boundaries are 5, 7, and 9. Left lung - impairment of resonance commencing at lower border of scapula and note becoming dull as we go down toward base. Over same lung anteriorly resonance is increased at base. Elsewhere lungs are negative to percussion.
AUSCULTATION: Over dull area above described, breath sounds are distant and trivial in character, bronchophony is present and occasionally a fine moist crepitant rale can be heard. Elsewhere lungs are negative to auscultation.

ABDOMEN: Symmetrical. No hernia, tumor masses palpable. No rigidity nor abnormal relaxation. Spleen not palpable. Liver palpable at costal margin.

GENITAL SYSTEM: No phimosis, discharge nor malformation.

GLANDULAR SYSTEM: Cervical glands palpable. No other glands palpable.

OSSEOUS SYSTEM: No tenderness nor deformity. No fracture nor swelling of joints. No abnormal mobility nor limitation of motion.

NEURO-MUSCULAR SYSTEM: Superficial abdominal reflexes present. Knee jerks present. Oppenheim, Gordon and Babinski negative. Both cremasteric present. No abnormalities of pain touch nor temperature sensations.

Dict. by Dr. R[redacted].

MT SINAI HOSPITAL OF CLEVELAND

Fig. 4. A specimen page of a history written up from dictaphone records.

That the scheme is successful is evidenced by the type of histories that we are securing. In order to make it successful, it was necessary for the administration to insure that a written history, properly typed, be on the ward within twenty-four hours of the time that it was dictated. The character of the histories that we have secured is much better than was possible under the old scheme. They are more legible by reason of their being typed and, in the opinion of this institution, the expense involved is more than repaid by the decreased efforts necessary to get a complete history, and by the increased character of the histories that we have secured.

The plan is submitted to the hospital world for whatever merit it may possess.

Location of Call Bells and Emergency Lights

It is a mistake on the part of an architect to locate plugs for call bells and emergency lights at the standard height of 4 feet from the floor. They should be above the ordinary hospital bed, as lamps are often inserted directly into the plug, with the result that more than one is broken off when the bed is moved.

We dash ourselves to pieces against our minor difficulties. The energy put into our weakness would, if put into our strength, set us on the pinnacle of greatness.—Stephen Berrien Stanton, "The Hidden Happiness."

THE RECORD SYSTEM AT THE PRESBYTERIAN HOSPITAL

A System Closely Associated with a Terminology of Disease Giving Absolute Uniformity of Record Despite Changes in Staff and Office Force—Success Due to Rigid Enforcement of Rules and Loyal Support

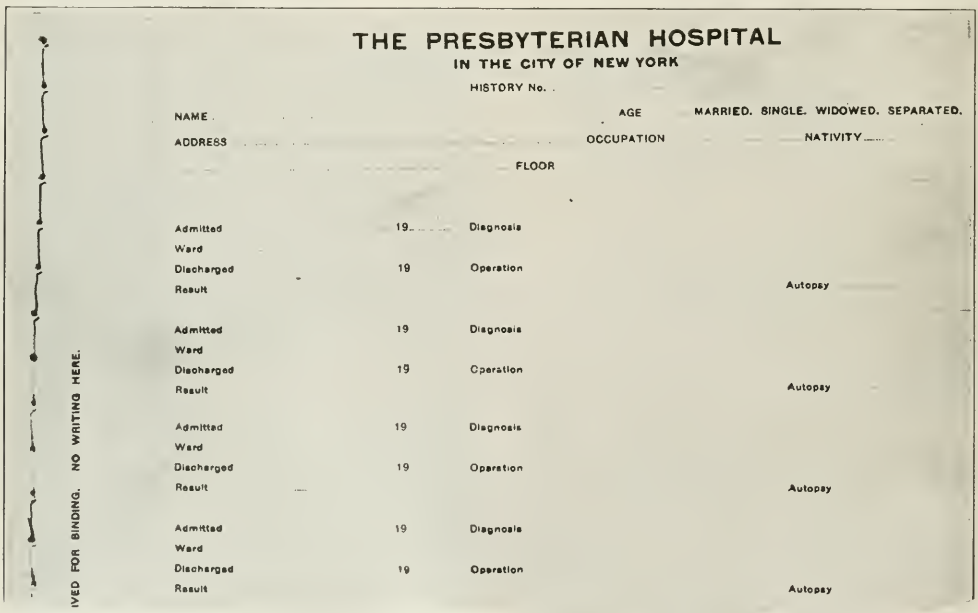
By ADRIAN V. S. LAMBERT, M. D., The Presbyterian Hospital, New York City

THE record system at the Presbyterian Hospital is the result of ten years' experience and the product of the effort and thought of many men. During this time we have adopted freely any portion of other systems which seemed to contain what we desired; it is thus simply a re-arrangement of elements long familiar, and in no sense a new and original conception. We know it is not ideal. It has had to be adapted to the architectural conditions of a set of old buildings. The admitting office, for instance, is widely separated from the record room, thus necessitating a certain reduplication of files and the employment of messengers which materially increase our expenses. For the same reason, the history system of the out-patient department has never been incorporated with that of the indoor service.

The system is so closely associated with the terminology of disease employed that a description of this is not out of place. This terminology was arranged by Dr. Walton Martin and myself some years ago. Two of its features are of vital importance, and are essential for the success of any system of disease classification.

1. The terminology may be used without the aid of an index, as its arrangement is simple and logical, and may be readily learned because all diseases and conditions, whenever possible, are grouped alphabetically according to their etiological factor. Whenever this is not possible, they are grouped under the particular organs or tissues involved.

2. An exact phraseology is stipulated for every condition which one is allowed to use. No new term may be invented or employed without previous knowledge and consent of a committee on clinical records. This last principle is rigidly enforced and has resulted in an absolute uniformity of terms despite the fact that our visiting staff and house staff have undergone constant changes. The fact that the filing is simply a mechanical process has made it possible to employ in the record room clerks whose knowledge of pathology, medicine and surgery has been meager.



THE PRESBYTERIAN HOSPITAL
IN THE CITY OF NEW YORK

HISTORY No. .

NAME . AGE MARRIED. SINGLE. WIDOWED. SEPARATED.

ADDRESS . OCCUPATION NATIVITY .....

FLOOR

Admitted 19.... Diagnosis
Ward
Discharged 19 Operation
Result Autopsy

Admitted 19 Diagnosis
Ward
Discharged 19 Operation
Result Autopsy

Admitted 19 Diagnosis
Ward
Discharged 19 Operation
Result Autopsy

Admitted 19 Diagnosis
Ward
Discharged 19 Operation
Result Autopsy

IVED FOR BINDING. NO WRITING HERE.

Fig. 1. Loose pages of patient's record sewn together to form history. Note that front page has spaces provided for subsequent admissions. Actual size, 9½ by 12 inches.

This identity of terms assures us that histories of patients suffering from the same disease will always be filed together; and a change of clerks has not been a serious matter.

The system of binding the histories differs somewhat from that usually employed, and it has been the direct cause of an awakened interest in the records by all concerned. I wish to explain the mechanical details of the process before going on to the filing system proper. The loose leaves which compose the history or record of a patient's stay in the hospital are sent on his discharge to the record room. A clerk arranges them in a prescribed order and stitches them together on a sewing machine along the left-hand margin (Fig. 1). These are then glued into a cardboard cover provided with a linen back. Each history has its own separate cover and is filed in consecutive number on the shelves until wanted.

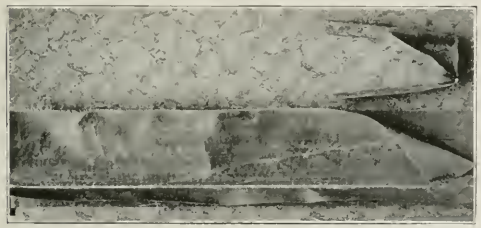


Fig. 2. Cardboard covers with linen back and extra strip of linen for insertion of history between its opposing surfaces, which are covered with glue. Below is shown cross-section. The entire extent of the cover is not shown. Actual length, 12 inches.

The construction of the cover is of interest. It is composed of two substantial pieces of cardboard of appropriate size to correspond to the size of the history sheet, united at the back by a strip of stout linen one inch wide. On the inside of this linen back and along its attachment to one of the covers is stitched a second strip of linen one inch wide. The stitching passes along its center and thus forms a double flyleaf, the inner or opposing surfaces of which are covered with glue (Fig. 2). The history is inserted between these flyleaves and fastened by the glue to the cover (Fig. 3). This method of binding histories so that each constitutes a separate volume allows additional facts to be added from time to time, either on subsequent admissions to the hospital or as follow-up notes. As the history comes to be a "permanent ever-increasing record of an individual" in his or her relationship to the hospital as a patient, it has been termed a unit history or the unit history system. If the individual is subsequently taken care of by the institution, any notes made at these times are added by a special form of tape to the back of the original record (Fig. 4). This applies whether the patient is admitted

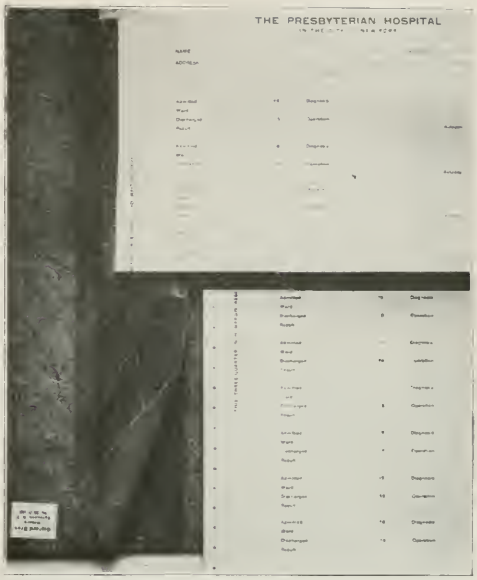


Fig. 3. The history has been cut in half, and above it is shown inserted between the gummed fly-leaf at back of cover. Below is shown the remainder of the fly-leaf and a portion of the history sheet which has been cut off.

to the same service or on some other service, whether in the wards, the dispensary or follow-up. The advantages from this have been many. The greatest of these is to the patient, who has a record of his illness kept over a long period of time and made so available that it is constantly used by his physicians, however often they may change. It gives to this class of patient some of the benefits which those enjoy who have their own family physician. In addition, the data are accurately kept, for each man, in making notes, knows that his work will be constantly reviewed by his confrères, who will make use of it—and this, too, at an early date. There is a saving of time, as no copying has to be done and no long summaries have to be made.

The routine of admission and discharge is as follows: A new patient receives an admission number, which is his history number. A bedside card and front page of his history, properly filled out by the entry clerk who enters on them his admission number, name, address and certain other data, are sent to the ward with him. While the patient remains in the hospital, this front page is kept with any notes made of his case, and on his discharge is sent with the other pages of his record to the record room to be bound as a history. In the case of an individual who has been a patient previously, the same routine is followed except that he receives his old number which he

received on the occasion of his former admission, and his unit history is sent to the ward from the record room instead of a new front page. This unit history remains in the ward until his discharge, when it is sent back to the record room, together with any new pages containing notes and data of his stay in the hospital. These latter are then stitched together and added to the unit history (Fig. 5).

The front page of the history is peculiar. It contains, at the top, spaces for history number, patient's name, address, civil condition, nativity and occupation. Beneath these are arranged, one below the other, ten spaces for ten possible subsequent admissions to the hospital. These spaces contain date of admission and discharge, result on discharge, diagnosis, operation, and a notation as to whether an autopsy was performed or not (Fig. 1). Each time a patient is discharged from the hospital, the proper dates, diagnoses, and other data are entered on this sheet in one of these spaces. On discharge, the bedside card is signed by the proper house officer, who enters on it the diagnosis and result of treatment. This card is then sent with the patient to the superintendent's office, where any data desired are copied from it, after which it goes to the record room to be filed under an alphabetical list of names which serves as a permanent name file in the record room.

The diagnosis file has a set of main guides for each etiological factor and each organ and tissue. These are grouped under the different systems. Behind these main guides are secondary ones for each separate diagnosis.

We have abandoned the division of conditions into principal disease and complications. Where there is more than one condition present we consider each one of equal importance and enter it in the file on the white card for that condition and file it behind the proper guide. At the same time,

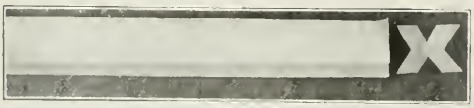


Fig. 4. Special tape composed of two strips of linen stitched back to back, the faces of which are covered with glue, one for attachment to new additions to history, and the other for attachment to cover back of old history.

all other conditions present as part of the diagnosis are entered on blue cards (Fig. 6) and placed behind the white card and its guide and are designated as accompanying conditions. We thus have every diagnosis filed in its proper place and completely cross-referenced.

The file is intended simply as a means to gather together the histories of similar conditions, and it is left to any one, by an intelligent perusal of those histories, to determine the exact role which the condition may have played in any particular case, instead of leaving this decision to a member of the house staff or a record clerk.

We have at the hospital a system of follow-up by which each member of the visiting staff spends one morning a week in personally examining and interviewing his old cases who have returned for this purpose. He has the unit history before him for reference and dictates notes to a clerk who enters them in the history. At each visit the physician designates the result of the treatment at the time of examination. These interval re-

Fig. 5. Additional notes made on the occasion of a subsequent stay of the patient in the hospital. Note the tape fastened along the left margin, ready for insertion into former record. A cross-section of this tape is shown as insert on lower left corner.

sults are divided under three headings, anatomic, symptomatic, and economic. The degree of excellence is designated under each heading by the numbers 0, 1, 2, 3, and 4, where 0 represents a failure and 4, a perfect result.

The use of numbers to represent degrees of excellence in results are more satisfactory than terms, such as "cured," "improved," "unimproved." The abuse of the term "cured," which has arisen in so many hospitals, is a real evil. It has been the chief cause of the worthlessness from a scientific standpoint of the many pages, representing hours of labor, of vital statistics in the numerous hospital annual reports. To take only one condition, for example, of the many

are "cured" by all our hospitals, one would imagine that the cure of cancer was an every day occurrence, judging from some of the reports submitted.

When the histories are returned to the record room, the record clerk places in the diagnosis file, after the proper diagnosis, a guide, marked with the length of time after discharge that the examination has been made, and enters on a card the history number and interval result, represented by numbers 0 to 4, and files it back of this guide. By these means we can at any time ascertain the results in any group of cases for any desired length of time with a very certain degree of accuracy.

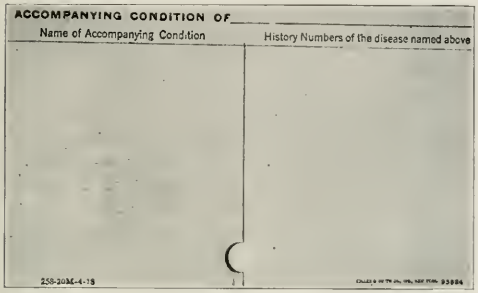


Fig. 6. Blue card for cross-reference of cases in which there is more than one condition present.

A committee composed of a member of the visiting staff from each of the several services manages the record room. A set of rules governing the various details is in force. The system has worked well because the men at the head of affairs have taken an interest in it and have lived up to the rules. No system can be a success if the men in charge of the patients claim exemption from the exactions of a rigid set of regulations and attempt to hold their assistants responsible for their enforcement. To set aside some inaccessible place in a building, to fill it full of large unwieldy volumes of bound histories, to open it a few hours a day, and to place it in charge of some inadequate clerk costs little, but is time and effort wasted. A record room, to be in any sense adequate, must be a costly part of our hospital budget, requiring a good-sized clerical force to make it an up-to-date efficient department of the institution. The managers of the hospitals should be brought to realize that it is money well spent, because a well-run record room results in an improved morale of the house staff and stimulates the visiting staff to a keener interest in all phases of their work, a result beneficial not only to the hospital, but to the patient as well.

Abstract of Discussion

Dr. R. J. Wilson, New York: Dr. Lambert states that in records of results 1, 2, 3 and 4 are code numbers; a partial success, as I understand, would be 1, 2, or 3, while a perfect result would be 4. In the Department of Health's hospital in the City of New York we abandoned code numbers years ago. We think it is easier to write in "cured," "improved," "partially improved," or whatever your code number stands for, so that twenty years afterward, when your cumulative evidence is being examined, some person with the wrong interpretation of numbers won't spoil the whole thing by giving evidence which is not what your history intended it to be. Code numbers in any form of history keeping are a mistake, if you can find a short and good word to take the place of the number.

Mr. F. E. Chapman, Cleveland: It is rather presumptuous for me to criticize the Presbyterian records, because I am just a scrub layman, but I would like to point out one or two defects in Dr. Lambert's system. In the first place, when he permits his primary admission to go back to the ward, there is a grave possibility of losing that history. We have attempted to get away from that by a summary of the previous admission. Dr. Lambert says that that takes time. That is true, but the summary gives the reference of the initial history much better, and much better control of it. Also I can't understand how Dr. Lambert files his second history—his second admission to the hospital. He said that he gives his initial history a number. Now, what do you give your second admission—the same number over a period of ten years?

Dr. Lambert: Yes.

Mr. Chapman: Well then, how do you keep a record of your admissions? Do you also use a discharge number?

Dr. Lambert: No.

Mr. Chapman: We have felt that there are two reasons for the keeping of a history—first of all, to keep a record of the performance for the patient; secondly, to give the doctors facility for studying diseases, and instead of filing as Dr. Lambert has filed, we have filed on the basis of an index. In other words, all of our primary conditions of typhoid are filed together and so on, so that if we want to find all the histories with a primary condition of any given disease we simply go to file No. 1 or file No. 7, as it may be, and take them out. Dr. Lambert says he accomplishes that by his index, but we accomplish it with the actual history.

As Dr. Lambert says, you can not put the responsibility of keeping records on your intern and have perfect records. You have to put it straight up to your attending man and then check that attending man and see that he does not procrastinate if you are going to get any kind of a record at all.

Dr. A. R. Warner, Cleveland: At Lakeside we have adopted practically all of the Presbyterian system for several years, and I have made one special trip down there to go over it again in the past year. There is one point about it, however, that was confusing to me, and may be confusing to others, and I spent some thought on the number under which the history should be filed. It is obviously correct to file by number. The only point is, what shall the number be? Formerly we filed under the discharge numbers at Lakeside. That was wrong. The admission number has certain advantages. It is desirable that the number of a patient be known immediately when the patient comes into the hospital; otherwise, that patient will have dozens of numbers, from a lab-

oratory number to an autopsy number, tacked to him before he gets out of the hospital, and you can't paste his many scattered records together anywhere. Therefore, we adopted the system of filing under the admission number. The admission numbers represent accurately the admissions for the year—the number at the beginning of the year and the number at the end of the year will tell you immediately just what admissions you have had during the year. It may be, or may not be, an advantage. The main advantage, however, is the fact that the number of that patient, which will forever remain the number of that record, is known when the patient comes in, and it goes to the ward with the patient on his admission card. It immediately goes on every record that is made and is never lost.

Now, on return patients we differ from the Presbyterian Hospital system—that is, if a patient enters Lakeside the second time, he is given a new number and the old record is brought to the new number. In the receptacle (we use an envelope in place of a folder) is placed a blank showing the essentials of the history, name, diagnosis, etc., and on the outside and inside both we put the new number to which that history is carried. It is no different from the Presbyterian system, except they carry the numbers back and we carry them forward.

Dr. Lambert: I will take the questions up in order—first, the question of using numbers for results. The decision to use numbers was largely in order to get away from the use of just that word which was brought up here—the word "cured." To us, that has been a red rag. To discharge as "cured" a patient who has been operated on for carcinoma and then to have him return within the memory of every man in the hospital and die from that disease, seemed wrong. The managers wished to retain that word. It reads well in a report—particularly in a report that goes out to a sympathetic public for financial support. If you can show that everyone was cured, it must be a hospital worth giving to—that is the only conclusion—you are doing a great work. There is for the use of the doctors a card on which those numbers are written and opposite the numbers are terms, not in a single word, but in a brief explanation of what each number means. Zero means a complete failure—treatment has not alleviated the patient's distress; 4 means a complete cure—the patient himself says that he is as well as he was before.

The history number is the admission number, and the superintendent's office or the entry clerk keeps an independent record, independent of these numbers, for each year, as to how many patients are admitted during that year. That history number is for the use of the hospital record and not for the use of the hospital statistics, and we have sacrificed possibly a little clerical work in order to obtain a number which applies to that man's record, no matter when and how often he comes in.

Now, we file our histories by consecutive numbers, and we keep a visible index in the record room of where each history goes, one for each ward. If a history is sent to that ward, a card is put in that visible index with the number of that history on it. The advantage of filing of consecutive numbers is this: that any history out of its place or missing is a history to be accounted for, for if it isn't on the visible index it is lost or misplaced. Any unit history system is liable to have a history misplaced—that's one of the evils of it. Now, the advantage of filing them according to consecutive number and not according to diagnosis, I think, is a real one. The difficulty, it seems to me, of filing histories according to diagnosis of the chief diseases is that you get a lot of typhoid fevers together, a lot of pneumonias together, and a lot of appendicitis cases together, and that arrangement is ideal for the man who wants to study typhoid fever, pneumonia, or appendicitis. But, supposing a man wants to study complicating conditions, he has to go over the whole lot, picking out of this group and that group in order to reassemble his diseases; and, more than that, he has to put them all back into those different groups again, and what one man might consider as a principal or chief disease in a case, another man might not. Suppose a patient comes in with appendicitis and is operated on for that disease but dies of pneumonia. Now, which is the principal disease, what was he operated on for, or what did he die of? Where are you going to classify it? The opinion of the classifier at the time may not be the opinion of the man who wants to use that history to consult it from a scientific standpoint.

I think the method used at Lakeside of having a universal number for everything connected with the patient—pathological specimen, x-ray, history, or whatever it may be—is ideal.

Miss Anderson: In the hospital I represent we take care of a limited number of obstetrical patients. I would like to know how you classify the babies. One patient comes in and two go out. Do you enter the baby with a new number and make a patient of him? Do you carry out your record and call it medical, surgical, or obstetrical? Do you classify the baby as free or partly free? The parent is paying, perhaps, for a high-priced private room. And there are a number of other complications on that one question. Do you charge the day a patient comes and the day he goes—or do you charge, as we do, the day he comes and not the day he goes? Your bookkeeping doesn't correspond with your number of patients.

Dr. Lambert: It has always seemed to me that we are too prone to feel that the patient in a hospital represents a mouth to be fed. Because the baby doesn't happen to have any of the prescribed diets in the hospital, it doesn't mean necessarily that we aren't taking care of him, and we enter him as a patient in just the same way as we enter any other individual who is taken care of by the nurses and the doctors as a patient, whether he eats or whether he doesn't eat, whether he is sick or whether he has been admitted for observation only. The charge for such babies I would have to leave to my superintendent.

Mr. Chapman: Miss Anderson said that one patient is admitted and two are discharged. When that baby comes into the world it is admitted, and, if you are going to discharge it as a patient, you certainly have to admit it as a patient. I think the policy of whether or not you shall charge for that baby is dependent upon your local conditions. Some institutions charge the same for a baby as they do for another patient. Some charge $1.50 per day. Our institution makes no charge for the infant.

A Member: How much of the record, bedside notes, etc., does the Presbyterian Hospital eliminate when filing records after the patient is discharged, or do you eliminate anything?

Dr. Lambert: We have been in the habit of binding everything—all the nurses' notes and any other data that might come in with the patient, including any letter from the doctor who has sent the patient, recommending him, or anyhing of that kind.

A Member: What would you do with all the records you have if you carried them very long? We find the keeping of all these records is a useless expense.

Dr. Lambert: To obviate losing something that might be of interest, we file away a good deal of unnecessary paper.

INFLUENZA IN THE SHIPYARDS

Temporary Hospital Facilities Provided at Government Expense to Shipyard Employees—Every Possible Preventive Measure Used by Army Officials—Course Taken by Disease in its Spread Throughout Country—How Spirit of Cooperation Helped

By LIEUT.-COL. PHILIP SCHUYLER DOANE, Medical Corps, United States Army, Former Director of Health and Sanitation, United States Shipping Board Emergency Fleet Corporation, Philadelphia.

THE United States Shipping Board Emergency Fleet Corporation has had more or less jurisdiction over 171 shipyards located on the coast lines and in the Great Lakes region, where varying climatic conditions prevail. In these yards there has been employed an army of over a half million men, all working under great stress to construct our much needed ships.

To carry on this emergency shipbuilding program, it has been necessary to give the shipbuilder every safeguard in the protection of his health in order to enable him to keep at his work with unusual energy and spirit.

These men were engaged in both day and night shifts. Fortunately, their work was very much in the open and in localities free from the dangers of the congested city life. This open-air existence was carried on only during working hours, however, as the men invariably had to return to their congested living quarters at night. But the living congestion was being rapidly improved by the many housing projects carried on by the shipping board.

A serious epidemic of so-called "Spanish influenza" first made its appearance at the Fore River shipyard, located in Quincy, Mass., just outside the city of Boston, which was doing very important work for both the Shipping Board and the Navy. Most of the employees lived in Boston and undoubtedly contracted the disease in that city. It spread terror among the men and their families, many of whom were unable to secure medical attention of any kind.

Careful investigation revealed the fact that over 50 percent of absentees were remaining away from work, either in fear of contracting the disease or because of the necessity of caring for a sick member of their family.

The hospitals of Boston and Quincy were unable to care for the civilian population, and it at once became apparent that hospital facilities must be provided for the shipyard worker. With the same energy that characterized the building of ships, temporary hospital facilities were provided, nurses secured, and medical attention given both to the sick men and the members of their families.

At the same time, very active measures were taken to prevent, as far as possible, any further spread of the disease. Every sick employee was obliged to report immediately to the attending physician, who either sent him to the hospital for isolation or returned him to his home for observation. Hygienic conditions in the yard were given very careful attention, disinfection being overdone rather than otherwise. The common drinking cup was absolutely abolished, and all eating utensils were carefully sterilized. Offices, sleeping quarters, lockers, bathrooms, and toilets were disinfected, and telephone mouthpieces were swabbed out daily with a 50 percent solution of formaldehyde and liquor cresolis.

This was the first shipyard affected, and the work of creating a temporary hospital which gave free treatment to the yard employees established a precedent which was maintained by the Emergency Fleet Corporation throughout the country.

Although very seriously affected, the Fore River shipyard was not obliged to close its gates.

From Boston the influenza spread westward to the Delaware River region and northeastward along the coast line. Observation revealed the fact that those cities which were classed as not highly sanitary were the ones most seriously affected. At Bath, Me., where war industries had caused a marked congestion during the past two years, the epidemic was very serious. In every city where the shipyard worker did not obtain ordinary hospital facilities, we established temporary hospitals, either in buildings of our own or in suitable structures taken over for the purpose.

We soon learned that hospital accommodations must be adequate enough to give more than the ordinary allotted bed-space, that the pneumonic type of patient must be separated from the simpler variety, and that the beds must be partitioned off in such a way as to screen one patient from another. We learned that free ventilation and abundant sunlight were very necessary. Partitions between beds were made by using compo board, which was carried to a height of at least 6 feet.

The advisability of establishing these hospitals was soon very apparent. The mortality rate in the private home of the employee was much greater than that among those who were cared for in the temporary hospitals, and this fact proved a strong argument in favor of establishing these hospitals in various parts of the country before the epidemic reached them.

Along the banks of the Delaware River the very important and large shipyards of the corporation were located. The epidemic appeared in Philadelphia in its most virulent form, the streptococcic type being most prevalent. From Philadelphia the epidemic spread to the nearby shipyards, creating the fear that many of the yards would have to close down for an indefinite period.

At Hog Island, where over 30,000 men were employed, the disease at first made but slight progress. At this time a prophylactic vaccine was being employed and was at first believed to be most efficient. Its efficiency, however, was but short-lived, as the epidemic eventually affected the workers in this yard quite as badly as in all others. Fortunately, temporary hospital accommodations were adequate and immediately available.

At Chester, Pa., some fourteen miles from Philadelphia, there are located two important shipyards. Because of the shipyards and other war industries, this city has increased in population from 38,000 to 125,000 within the past two years, an increase which has caused grossly insanitary conditions. The epidemic developed in this city to an alarming extent, and it was impossible to give our sick any hospital accommodations in the already too small institutions. On the outskirts of Chester is located the state quarantine station, which, because of the war, was not in service. With its usual splendid spirit of cooperation, the Commonwealth of Pennsylvania acceded to our request, turning over buildings for the accommodation of some six hundred patients.

Nurses and medical attendants were secured from every available source, the Red Cross rendering most valuable assistance, while senior medical students were loaned to us to serve on the house staff. At this particular hospital the local staff speedily organized and equipped an institution which was of great credit and did most heroic work.

In the city of Chester, the First Regiment Armory and Odd Fellows Hall were both made into hospitals in which the shipyard worker and his family were given treatment.

In the city of Philadelphia are located the offices of the Emergency Fleet Corporation, where about five thousand persons are employed, many of whom were strangers in the city. Here, as elsewhere, the same difficulty was found in securing medical attention of any kind, and the local hospitals were soon filled.

The Fleet Corporation was compelled to establish a hospital of its own, which was placed under the control of the Department of Health and Sanitation.

Study of the cases cared for in this hospital verified the fact that the majority of the cases were complicated by a streptococcic infection. Their treatment was more or less symptomatic, combined with a routine use of large doses of sodium salicylate, normal salt solution enemata, and judicious stimulation. The use of coal-tar products and aspirin had been freely advised in the public press, and we feel that this publicity was responsible for many serious cardiac cases which were admitted to the hospital. Pulmonary complications were frequent and developed quickly, but cleared up more rapidly than those in the ordinary type of bronchial pneumonia. Patients were not crowded; they were given free ventilation, and the results obtained from this treatment were most satisfactory.

From the Delaware River district, the epidemic next spread to the shipyards of the Pacific Coast, then to those located in the Southern-Atlantic Coast district, and, lastly, to those of the Great Lakes region. As all these yards had previously been warned, however, they were more or less prepared. Prophylactic sanitary conditions had been carried on most efficiently in the yards on the Pacific Coast, so that they were but slightly affected. In the district including the states of Washington and Oregon, a prophylactic serum of mixed pneumonia-influenza type had been employed previous to the appearance of the disease, and in those yards in which this had been used the epidemic made little impression. This was the only instance in which a prophylactic serum seemed to be of any value.

In the Great Lakes region, influenza had appeared in and about Chicago some time before, but it was not until some three weeks afterward that the epidemic seriously affected the shipyards outside the Chicago district. Here methods were adopted similar to those in other localities, hospitals being temporarily equipped, manned, and conducted at the expense of the shipyards management.

The physicians on the staff of the Department of Health and Sanitation went from district to district, giving the local medical talent the benefit of their experience in other localities in which the epidemic had already made its appearance.

In none of these yards were the employees charged for their care or treatment, although the expense of maintenance amounted to a considerable sum. The humane policy of the Shipping Board was manifestly a good one, for not one of the yards was compelled to close its gates at any time and the necessary shipyard worker was more speedily returned to his work after his illness with a greater spirit of loyalty and a keener desire to hasten the construction of ships.

THE EFFECT OF THE PAST YEAR'S EVENTS ON DIETETICS

Dietary Department of Hospital Assumes Increasing Importance—How Dietitians and Superintendents Have Solved the Food Problem Presented by the War—Work of the American Dietetic Association in Effecting Cooperation of Important Factors

By LULU GRAVES, Editor of Department of Dietetics, The Modern Hospital, President American Dietetic Association, Specialist in Nutrition, Cornell University, Ithaca, N. Y.

DURING the year just ended, the question of food and dietetics has been a vital one to everyone who has had any responsibility in the feeding of themselves or others. Since more attention has been given this subject by our hospital authorities, not a few have come to a better realization of the importance of their dietary departments, and some things of value have been "discovered." It has been somewhat of a revelation to find the number of very acceptable foods which may be produced from substitutes when combined with the proper amount of intelligence.

The situation which all hospitals have had to meet has been a very difficult one, but out of it have developed some practices which have proved of sufficient benefit to warrant their continuance. Many communications from hospital superintendents and dietitians have given such strong evidence of this fact that I take the liberty of quoting from a few of them.

"The one thing brought about by the war which we rather expected would come some day at the request of the nurses themselves is cafeteria service," says one hospital superintendent. "At the opening of the hospital nearly five years ago, we provided cafeteria service for the male and female help. This proved so satisfactory that the nurses themselves asked for the cafeteria service for their dining room; consequently, we are putting it in, and we expect it to be as good a saving there as it has been in the serving of the help.

"We have always maintained a restaurant for the visitors or friends of patients, as well as for any of the doctors or traveling men, who might happen to be in the building at the meal hours (meals are served here only at the regular meal time, and not continuously). It is a paying proposition and a source of great comfort, as we do not have to serve any trays in the private rooms and we have a place where we can take outsiders."

"For over two months," says a hospital dietitian, "not one grain of sugar has been used in cooking for either patients or nurses. The latter have been accustomed to having a dessert for dinner four times a week and the patients, twice a day. We still have the same schedule, using all the sugar substitutes on the market.

"Condensed milk is splendid for all kinds of custards and ice creams, while corn syrup makes any apple dessert most delicious. The latest experiment in our diet kitchen was a cranberry jelly made with Karo syrup, and a nice, stiff, acceptable-tasting jelly was the result.

"The cooperation of our nurses on the conservation of food has been most gratifying. They have eaten 'wheatless,' 'sugarless' 'experiments' without a grouch. Anyone who feeds nurses knows that this is the highest praise that can be given."

"Our milk allowance now," says the dietitian of a large municipal hospital, "is one-half pint for light diets, and one to one and one-half quarts for liquids, milk, and special diets. I believe this is a big saving. When the milk standard was set, our daily order dropped from as high as 118 gallons to as low as 70 gallons. This means a great deal, with milk costing forty to forty-two cents a gallon."

The dietitian of a large private hospital reports:

"The amount of bread used has been reduced by serving but one slice originally and additional slices only when requested by the patient. As all food is requisitioned from the kitchen each meal and a chart showing the number of patients is kept in the kitchen, there is little chance for wasting or misusing supplies."

The superintendent of a state school for the feebleminded says:

"We have found no objection to the serving of quick breads twice a day. In our regular baker's ovens we can bake corn-breads for 1,300 at one time. Each oven holds 190 loaves, making 380 loaves each baking in the two ovens. It depends upon the richness of the other items in the dietary whether we have one or two bakings for one meal. The corn-bread and muffins for the employees are baked in the regular kitchen ovens."

These few specific instances by no means tell the whole story. Dozens of institutions are doing things along similar lines.

The way in which difficulties due to the labor situation have been met in many cities is also significant. At the time when the influenza epidemic was causing havoc in every quarter, the schools were closed and the teachers of home economics offered their assistance to dietitians. Expressions such as the following leave no doubt as to the character of service rendered:

"Since the labor problem became so very critical, these volunteers have been of great assistance, and often we

have felt that they saved us from being completely overwhelmed."

"We have had three or four teachers helping in both the main and diet kitchens for several weeks. They are willing workers and have helped us out of a hole many times when we were swamped with work."

Valuable as this service was to the institution at the time it was given, there will be added to its worth the value of a better understanding between the hospitals and other civic interests. The teachers in the public schools will have a better knowledge and appreciation of the methods of managing dietary departments, which cannot fail to react favorably to the interests of both parties, bringing about a greater consideration of each for the other, and there is no reason why this cooperation should cease to exist.

In a few instances, patients from the county infirmary or other available institutions, or people from the dispensaries, were drafted into service for the less difficult pieces of work.

Within the past year the number of calls coming to me as editor of the Department of Dietetics of THE MODERN HOSPITAL, as president of the American Dietetic Association, or otherwise, for dietitians to develop or take charge of dietary departments has multiplied many times. I regret very much not to have been able to meet nearly all of these requests but hope, in the course of another year, to be better equipped to do so. I have a complete list of all schools in the United States offering home economics training, with some information regarding the size of the department, number of teachers, etc., and am now making a list of all the hospitals offering training to student dietitians, together with the length of course, the prerequisites for training, the kind of training given, and any other data of importance. With these data as accurate as we can keep them, I hope to be of assistance to both superintendent and dietitian. I have, also, the names of several hundred dietitians who are in active service, either in civil or base hospitals.

The American Dietetic Association was organized a little more than a year ago. The first annual meeting was held in Atlantic City in September, at the same time and place as the meeting of the American Hospital Association. This organization has a paid-up membership of one hundred fifty, with approximately an equal number of applications for membership. Included among its numbers are some of our leading nutrition experts, such as Dr. Mendel, John Phillips Street, Dr. Langworthy and Caroline Hunt, as well as members of the faculty of Teachers College, Cornell University, Pratt Institute, and many state universities where the home economics department is strongly developed.

This bringing together of the schools, giving foundational training for dietetics, the dietitians making the practical application of this knowledge, and the experts in nutrition, upon whom both groups rely to such an extent, will do much to improve the quality of the work done in our dietary departments. The association hopes to be of help to dietitians in any or all of the fields where the woman with training in food and nutrition is now in demand, i. e., the hospital dietitian, the executive dietitian, the social welfare dietitian, the teaching dietitian, and the specialist in dietotherapy.

A number of state and city associations have also become recognized factors working for the good of their immediate vicinities. The training offered to student dietitians by many hospitals is an advantage both to the student and to the hospital. Since this is so generally recognized, the courses offered have improved greatly, in regard to the character of the training as well as the length of the term.

In voicing her opinion on this subject, a certain dietitian expressed the thought of a great many when she spoke as follows:

"The training of pupil dietitians is a subject of the keenest interest to me. I wish that every school of home economics would make the hospital course obligatory before issuing a diploma and that every hospital superintendent would require such a course from her prospective dietitian.

"If a personal experience is permitted, I wish to say that I entered on my hospital career without ever having seen the inside of a hospital. I had never even met a trained nurse. Why I liked hospital work I'm sure I don't know, because the knocks I received were many and hard."

Conditions have not been favorable to the forming of metabolism wards the past two years, but those already established are doing a splendid work. At Hahnemann Hospital, Rochester, N. Y., 65 cases of diabetes, 49 cases of nephritis, and 21 cases of miscellaneous disease were treated during the past year. The report of this department of metabolism is most interesting reading. A few other departments are doing equally commendable things.

The dietary departments of all institutions have faced difficulties never before thought of—yet have faced them bravely and determinedly. In the year just ended, there has been laid the foundation for a strong and stable structure which bids fair to develop into a well-built and useful department—one that will take its proper place in the future plans of all hospitals and other institutions.

To know what you prefer, instead of humbly saying Amen to what the world tells you you ought to prefer, is to have kept your soul alive.—Robert Louis Stevenson.

TIME-SAVERS FOR THE ACCOUNTING AND THE LAUNDRY DEPARTMENTS*

Advantages of Using an Individual Pay-Roll Card—Time Saved and Friction and Jealousies Obviated—Simple Method of Caring for Linen

By L. H. BURLINGHAM, M. D., Superintendent Barnes Hospital, Administrator St. Louis Children's Hospital, St. Louis

WE have heard much of conservation of food, conservation of materials, and conservation of fuel. I want to bring to your attention two matters that have to do with conservation of time.

The first will conserve the time of your bookkeeper. You will all acknowledge that the time of the bookkeeper is most important because he, more than anyone else, can tell us where we are, so far as our consumption of food, materials, and fuel is concerned, and can let us know whether or not we are being as economical as is possible.

I suppose that in many hospitals the pay roll, including names of employees, wages paid, days of work actually performed, and amounts due, is written out in full every month; in some it is written out every two weeks, and in a smaller number, every week. Now that employees are favoring laws, which have already been enacted in some states, requiring a weekly pay roll, the number of those who will have to write the pay roll weekly will increase. At the Peter Bent Brigham Hospital we had a weekly pay roll. At the Barnes Hospital we pay every two weeks. My bookkeeper saves three to four hours each time he makes out the pay roll for about 150 employees, so that in the month he saves nearly a whole day, which is certainly well worth while.

Doubtless many of you have been bothered by the jealousies of employees who were receiving quite all they were worth to you, but not quite so much as someone else in the same line of work, who had been longer employed or who was more efficient. Again, the feelings of some employees are hurt because they have not received the same increase in pay as a coworker has, who has rightfully earned it, while they have not. It is often a matter of difficulty and much time to straighten out these petty troubles. How do they find out what the others are receiving? In two ways: one is by the bragging boast to which some are so prone, and the other, more sure and most authoritative, by reading on the pay roll what the others receive while signing their own names.

It was to obviate this second condition that the method I shall describe was worked out. The gain in time is the by-product, but, as is often the case, the more valuable of the two.

All our employees fill out a contract, which is essentially the same as that used at the Massachusetts General Hospital and Peter Bent Brigham Hospital, and which gives, in addition, the more important data in regard to themselves, such as name, residence, age, social condition, previous employers, etc. They are then given a number for the card rack of the time clock and a card with a corresponding number.

From the contract form, regularly called application blank, the necessary data are transferred to the pay roll card, which is really the backbone of the whole system. This card has a space for name, address, age, position, wages, hours, date when work was begun, and date when finished. Under "wages" enough space is left so that, as each increase in pay occurs, it may be set down, with the date, and initialed by the executive. The card is ruled off into weeks, and one card has spaces for fifty weeks; consequently each employee's name has to be written only once in that period of time. From the time clock card, the pay roll card is made up each week, with a single line in each day, if the employee worked all day. If he was late or if he left before the time was up, the number of minutes is indicated in the upper or lower part of the space for the day. If he worked only one-half day, that is put down as a fraction in the proper space. If on vacation a "V" is used, if sick, an "S," and if absent, an "A."

At the top of the card, just above the ruling for the weeks, is the statement, "Received from the Barnes Hospital wages in full to date," so that, when the employee signs his name on his card in the space following the proper week of work, we have an actual receipt for the money. This method makes the auditor's work easy, and the method has been approved by the auditors of both the Brigham and Barnes Hospitals. When an employee leaves the service of the hospital, a note is made by the head of the department on the card, giving the reasons for leaving, the character of the work done, and whether or not he should be reemployed. These are filed away alphabetically, and we are never at a loss to reply to a request for a reference from a prospective employer.

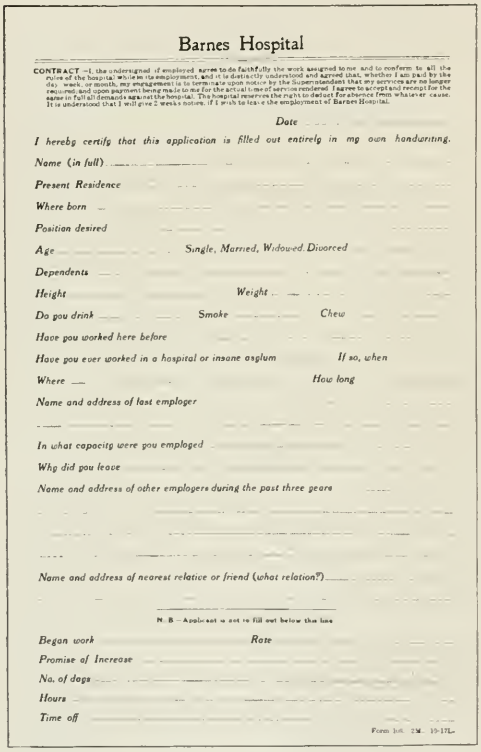
I may add that none of the hospitals with which I have been connected gives an employee a reference on leaving, feeling that such a reference is of no value either to the employee or to his prospective employer, but instead, they tell the em-

*Read at the Twentieth Annual Convention of the American Hospital Association, Atlantic City, Sept. 24-28, 1918.

ployee, if his work has been good, he may refer to the hospital.

Furthermore, if an employee wishes to return to work for the hospital even after many years have elapsed, we shall not have to rely on the hazy impressions of some department head who may have John Jones entirely mixed up with James Jones, a state of affairs not to be wondered at.

So much for the value of the system so far as the bookkeeper and the employees are concerned.



Barnes Hospital

CONTRACT.—I, the undersigned, if employed, agree to do faithfully the work assigned to me and to conform to all the rules of the hospital while in its employment, and it is distinctly understood and agreed that, whether I am paid by the day, week, or month, my engagement is to terminate upon notice by the Superintendent that my services are no longer required, and upon payment being made to me for the actual time of service rendered. I agree to accept and receipt for the same in full all demands against the hospital. The hospital reserves the right to deduct for absence from whatever cause. It is understood that I will give 2 weeks notice, if I wish to leave the employment of Barnes Hospital.

Date

I hereby certify that this application is filled out entirely in my own handwriting.

Name (in full)

Present Residence

Where born

Position desired

Age Single, Married, Widowed, Divorced

Dependents

Height Weight

Do you drink Smoke Chew

Have you worked here before

Have you ever worked in a hospital or insane asylum If so, when

Where How long

Name and address of last employer

In what capacity were you employed

Why did you leave

Name and address of other employers during the past three years

Name and address of nearest relative or friend (what relation?)

N. B.—Applicant is not to fill out below the line

Began work Rate

Promise of Increase

No. of days

Hours

Time off

Form [illegible] 2M.—10-17L.

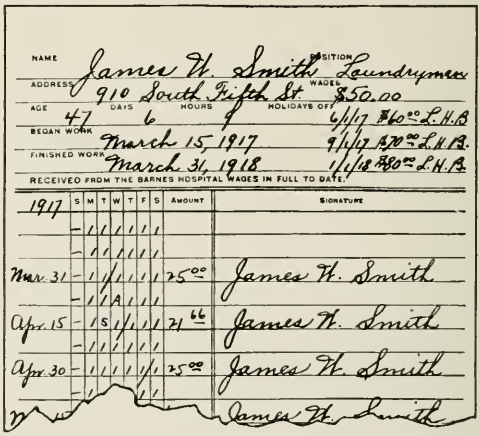
Fig. 1. Form of contract and application blank signed by candidate for employment at Barnes Hospital. Actual size of original, 9½ by 6 inches.

Now let us consider its value to the hospital executive.

We have a department recapitulation card for each department, on which the sums paid out to each employee on each pay day are entered, as well as the amounts to those leaving between pay days, and these sums are totalled. This enables the executive to know what individual increases and decreases have been made in the pay roll of each department.

There is a third card, the master card or general recapitulation card, on which are entered the totals from each department, thus enabling the superintendent to know just what departments show increases or decreases, and to learn just what the changes are in his pay roll as a whole. If payments are made by cash, this is all that is required. If they are made by checks, as at the Barnes Hospital, we keep a voucher register, with the employees entered by departments, which shows the numbers of the checks of each employee and the amounts. It is not necessary to have a special book ruled for this purpose. We purchased a trial balance book with spaces, so that, paying as we do, bi-weekly, we have to write the names of our steady employees but once in six months.

This method has been used at the Peter Bent Brigham Hospital, where the payments are made



NAME James W. Smith POSITION Laundryman
ADDRESS 910 South Fifth St WAGES $50.00
AGE 47 DAYS 6 HOURS 9 HOLIDAYS OFF
BEGAN WORK March 15, 1917 4/1/17 $60.00 L.H.B.
FINISHED WORK March 31, 1918 1/1/18 $50.00 L.H.B.
RECEIVED FROM THE BARNES HOSPITAL WAGES IN FULL TO DATE.

1917	S	M	T	W	T	F	S	AMOUNT	SIGNATURE
		–	/	/	/	/	/	/	
		–	/	/	/	/	/	/	
Mar. 31		–	/	/	/	/	/	25.00	James W. Smith
		–	/	A	/	/	/		
Apr. 15		–	/	S	/	/	/	21.66	James W. Smith
		–	/	/	/	/	/		
Apr. 30		–	/	/	/	/	/	25.00	James W. Smith
		–	/				/		
									James W. Smith

Fig. 2. Pay-roll card in use at Barnes Hospital. Ruled on back, but heading omitted. Actual size of original, 5 by 8 inches.

in cash each week, at the Barnes Hospital, where the payments are made by check each two weeks, and at the St. Louis Children's Hospital, a hospital smaller than either of the above, where the payments are made each two weeks in cash. This shows the adaptability of the method.

My second time-saver has to do with the laundry. In former times all ward laundry was counted, listed, and sent to the laundry, where it was counted again and compared with the list. After being laundered, it was sorted into pigeonholes, counted, and sent back to the ward or place from which it came, and again counted. Some of the disadvantages of this system were due to the difficulty and tiresomeness of making the routine counts. Counting is never a thrilling experience, and a well-known administrator once said, "Why is that I find so great a difficulty in getting a correct census of my institution of a thousand beds?

Why can't the nurses actually count the patients instead of taking the number of beds, subtracting so many sheets, and turning in the result as the correct number?" There is no answer to this except that people do get tired of routine counting and try to short-cut it whenever possible.

Another disadvantage was that each ward had to have its laundry individually marked, so that each sheet had to be examined carefully for its mark instead of being simply sorted out quickly into a pile of sheets, as is done in the central linen room and also in our method, which I have called the "direct method." Again, laundry marks often came out in the wash, thus creating confusion. Furthermore, each ward had to have a surplus of each article to avoid running short if the laundry did not come back on time. Then, too, it was not always convenient to get out all the laundry received on one day, and this, of course, would muddle the ward, as the articles returned would not correspond with the list sent, the number received one day being less than those sent, the next day

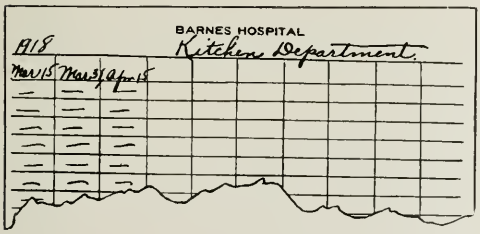


Fig. 3. Department recapitulation card. Ruled on both sides. Actual size of original, 5 by 8 inches.

more than those sent. In a word, a lot of bookkeeping had to be done by people with no special aptitude for it or interest in it.

The next method, and a step forward, was the establishment of the central linen room. The laundry was marked usually only with the hospital name. It was sent to the laundry without being counted, was washed and sent directly to the central linen room. Here it was sorted only into classes as sheets, pillow cases, spreads, etc. Any article requiring mending was sent to the sewing room. The various wards sent down a requisition only for the amount needed for the day. This method saved a great deal of time in counting and sorting, and reduced the stock of linen necessary to keep on hand by as much as a third or half.

At the Barnes Hospital we think we have taken another step in advance. We have abolished the central linen room, and have established a method of elemental simplicity. Now the linen is sent to the laundry, as previously, and laundered. But, instead of being piled into baskets and taken to the linen room, sorted and placed on shelves, and then transferred from the shelves to the carriers and thence to the wards, it is taken directly from the laundry machines to sorting shelves in the laundry and from these shelves it is placed in baskets for the various wards and delivered to them directly from the laundry. The laundry is just as easily sorted, and no larger supply of linen is required than under the central linen room system. Our savings are the following: We save time in transportation. We no longer require practically the whole time of one woman and part of that of another in the linen room, as the sorting and filling of orders is done by the

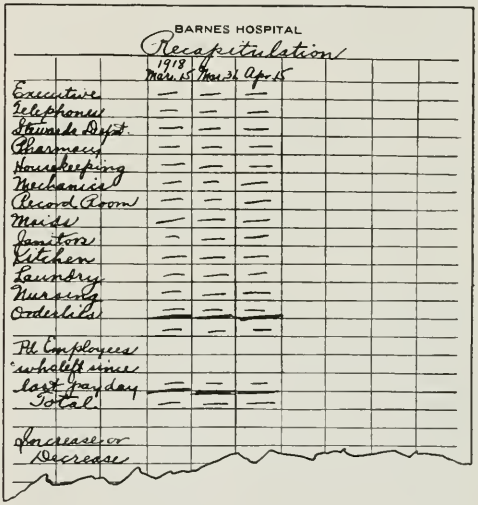


Fig. 4. Master card or general recapitulation card. Ruled on both sides. Actual size of original, 5 by 8 inches.

head laundress and a checker. We save the time of orderlies or porters, both exceedingly rare individuals in these days, in having the laundry delivered by the same boy who collects it.

We have had this method in use nearly four months, to the complete satisfaction of all concerned, and the saving has been well worth while. Since we worked out this method at the Barnes Hospital independently, we have discovered that the Massachusetts General Hospital is successfully using practically the same method.

Abstract of Discussion

MR. F. E. CHAPMAN, Cleveland: I would like to suggest a further time-saving step in paying help. Dr. Burlingham makes a check, then he enters it on a card, and then he handles that card again to have the employee sign it. He has that employee endorse the check, which is a receipt, if the reverse side of his check is so worded, elimi-

nating the necessity for handling the card. Now, as a matter of distribution of expense, if he will pool that card with an adding machine, there will be one handling of the card necessary, and if he will put the check number opposite the amount paid he will have a ready reference, so that he will eliminate another handling.

Mr. C. B. Hildreth, Cleveland: In doing away with the linen room, do you not find that after the laundry is closed often the department wishes linen supplies?

Mr. J. R. Howard, New York: It wasn't clear to me whether the pieces were counted. It looked to me like saving the time of a bookkeeper by doing away with the trial balance.

Dr. Burlingham: As to the losses of laundry, we try to get a correct inventory every six months of all the laundry in the hospital; that is, we take the account of the previous inventory, add to it the amount we have put in service, and, of course, that is just the same as the amount we have taken away, because we replace only worn-out articles, unless there is some definite reason for increasing our standard. We find that under the present system we do not lose as much laundry; that is, during the last four months we have lost less laundry than we did under the old system. Now, I can't say that's entirely due to this system. I don't believe it is. I believe it is partly due to the fact that we are marking all our linen much more carefully and keeping the marks on them better. We have had numerous conferences with our employees through our heads of departments, and we have explained to them that taking a hospital article isn't "swiping" it—it is plain stealing—and it seems to have appealed to them.

As to not counting being comparable to not taking a trial balance, I would say that a trial balance that is not correct has never done anybody any good.

As to the way the wards get their supply, the requisition is sent down to the laundry by a messenger.

Our surplus linen is kept on the shelves in the laundry, and, if more laundry is needed on a Sunday or holiday or after hours, the key to the laundry is available.

The laundry is marked only by the hospital name and for a certain few articles that go to special places, but generally the name is put on. In some cases we separate wards from the private pavilion but we don't separate the various wards by marking.

THE EMERGENCY INFLUENZA HOSPITAL AT WAYNE, PA.

Splendid Community Team-Work of Red Cross, Local Physicians and Organizations, Catholic Sisters, Deaconesses, Lay Volunteers, and Police Department—Gratitude of Those Who Received the Benefits of the Hospital

By Our Local Correspondent

WHEN the influenza epidemic developed serious proportions in Wayne, Pa., it was at once realized that prompt action was necessary to alleviate the distress in which many families, particularly among the poorer classes, found themselves. Mrs. William Henry Brooks, chairman of the Wayne Branch of the American Red Cross, called a special meeting for ten o'clock on the morning of October 10. The social worker and the visiting nurse of the Neighborhood League, a local philanthropic organization, were invited to attend this meeting and to report on conditions.

As a result of the conference, it was decided that an emergency hospital and diet kitchen should be opened immediately. The ladies of the Saturday Club offered their building for the purpose. By noon a full equipment for a fifty-bed hospital was requisitioned from the Southeastern Pennsylvania Chapter of the American Red Cross. A local factory offered its trucks and by eleven o'clock that evening twenty-four beds and all necessary equipment—screens, tables, etc.—were installed in the club house.

Fig. 1. The emergency influenza hospital at Wayne, Pa., organized by local initiative and installed in the building of the Saturday Club.

At eight o'clock the following morning Mrs. Robert G. Wilson, a resident of the community and a graduate of the London Hospital, who had been placed in charge of the work, opened the hospital and with her staff began receiving patients. The staff consisted of two trained nurses, four Presbyterian deaconesses, two Catholic sisters and fifteen lay volunteer nurses, the latter working in shifts of five. One trained nurse, two of the deaconesses, the two Catholic sisters, and one volunteer orderly comprised the night shift.

At nine o'clock the first patients were received, a man, his wife, sister-in-law and three children, all desperately ill. By noon fifteen cases had been admitted and the second day brought the total up to twenty-four. With the growing demand upon the hospital, it was realized that provision must be made for children. Plans were hastily drawn for a building measuring 18 by 40

feet, of frame construction, and in three days this building was erected, equipped with steam heat, electric light, intercommunicating telephone, and running water. Four patients were admitted on the third day. The addition of this ward raised the total capacity of the hospital to thirty-six beds, which were rapidly utilized.

The local physicians, seven in number, visited the hospital daily, and each case was given medical attention by its own special physician.

To care for the expectoration, paper handkerchiefs were used, which were issued frequently to patients. The paper handkerchiefs were placed in ordinary paper bags, the bags being removed as frequently as necessary and destroyed by burning. This work was the special duty of one nursing aid, who kept the supply plentiful and made the removal of soiled handkerchiefs in the bags her duty. All clothing, blankets, etc., were disinfected with coal tar disinfectant. Compound solution of cresol (lysol) and formaldehyd were used for the bed-pans, toilets, etc.

The patients were nursed on army cots requisitioned from the Red Cross. The most seriously affected patients were nursed in beds collected in the neighborhood; five beds and five cribs were lent. Men and women were, by reason of space limitations, nursed in the same ward. The ward was divided full length by four-fold hospital screens, five of which were donated. The patients were placed head to foot alternately instead of using divided sheets. This was necessary on account of the limited capacity of the ward.

The laundry work was handled by a special committee, which employed paid help, and was done in a separate building and away from the hospital.

The police patrol, which is well equipped for ambulance work, was used in transporting patients to and from their own homes. The local police heartily cooperated in this work.

Owing to the problems which frequently come from the handling of patients' own clothing and the impossibility of disinfecting it, all patients were put into hospital clothing in their own homes and brought to the hospital wrapped in blankets and were sent home in like manner. This solved the problem of "how to handle patients' personal belongings."

The ambulance was run by volunteer nursing aids, with the assistance of the police, who were frequently pressed into service for stretcher work. The cases were always accompanied from and to their homes by the social worker or the visiting nurse of the Neighborhood League, who saw the patient returned and made it her duty to see that everything was in good condition in the patient's home. This was important, inasmuch as many patients were poor and ignorant Italians, upon whom it was difficult to impress the importance of the need of "after-care."

Fig. 2. The emergency children's ward, erected and equipped with steam heat, electric light, intercommunicating telephone and running water, all in three days.

The telephone service at the hospital was conducted in a small room off the main ward and was cared for by a committee of ladies who took orders for the diet kitchen (attached to the hospital) and answered all hospital calls.

The motor messengers of the Wayne Branch were on duty all day, ready for orders, and attended to the delivery of all baskets sent out from the diet kitchen.

The diet kitchen, a very important part of the emergency hospital, was under the able management of Mrs. E. W. S. Tingle, who worked untiringly. In addition to the hospital diet, which was the very finest as to the quality, quantity, and service, and consisted of sixty-one meals daily in addition to soup for the night nourishment, 139 baskets were sent out daily. The total number of meals served by the diet kitchen in the nineteen days the hospital was open was in excess of fifteen hundred.

The hospital was liberally supported by volunteer contributions, which in cash amounted to $2,169.81. Unlimited quantities of soup, custards, jellies, oranges, clothing, beds, and bedding were most generously donated from all quarters.

Touching incidents showing that people realized what was being done for them occurred when an Italian man appeared at the hospital and turned in $27 in cash, together with a list of names of the Italians who had contributed the amount, and again when a working woman called at the hospital and gave a dollar in lieu of nursing service, which she felt she ought to render, but could not because she had "young uns" at home. The hospital was open twenty-one days, with the record of sixty-three cases. Of the patients, fifty-one returned home recovered and eight were transferred to other hospitals at the time of closing. There were four deaths.

THE SYMMES-ARLINGTON NURSES' HOME*

Community Hospital at Arlington, Mass., Enlarges Its Capacity in Order to be Ready to Render Patriotic Service—Sleeping Balconies an Original Feature of Plan

By WARREN C. HILL, of Kendall, Taylor & Co., Architects, Boston.

ON Patriots' Day, April 19, 1918, the Symmes-Arlington Hospital opened to the public and future usefulness its new nurses' home.

It was a pleasant coincidence that chose Patriots' Day for this celebration, linking as it does, the stages of growth in this hospital with events of national and patriotic association, for the hospital was first opened to the public on Washington's birthday, 1912. It is appropriate, too, that a building, one of the prime causes for whose erection is that the hospital may be ready to do its part in the care and recovery of our soldier boys, should be dedicated on a day consecrated to the memory of those who served their country in her day of need.

The development of this institution since its opening in 1912 has been remarkable, and the record of patients treated and the low per capita costs maintained have been the wonder and admiration of other hospitals of its size. During

Fig. 1. Entrance hall and sitting room, Symmes-Arlington Hospital Nurses' Home, Arlington, Mass.

this period, including the year 1917, with 1,869 patients, including 285 maternity cases, cared for, the average per capita cost has been $3.50 per day, and the percentage of the treatment paid by the patients has been 82.5 per cent.

The capacity of the hospital for some time has been taxed to the utmost and, two years or more ago, the accommodation for nurses was found inadequate—in fact, so distressingly so that, in the fall of 1916, the trustees asked the architects, Kendall, Taylor & Co., to make plans of adequate provisions not only for the present great need, but for a reasonable growth in the immediate future. The foundations were put in during the fall and winter, but, at the outbreak of the war in the spring, it was a grave question whether it would be possible to carry on the superstructure.

A year after the first development, the trustees decided that this building was essential to the

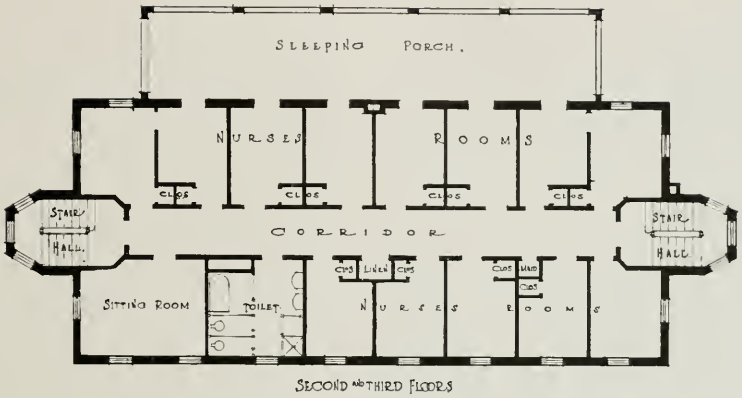
Fig. 2. The sleeping porch, second floor.

present work, and also for patriotic service which the hospital might be called upon to render, and they felt they ought to complete the building at the earliest possible date. They reasoned that,

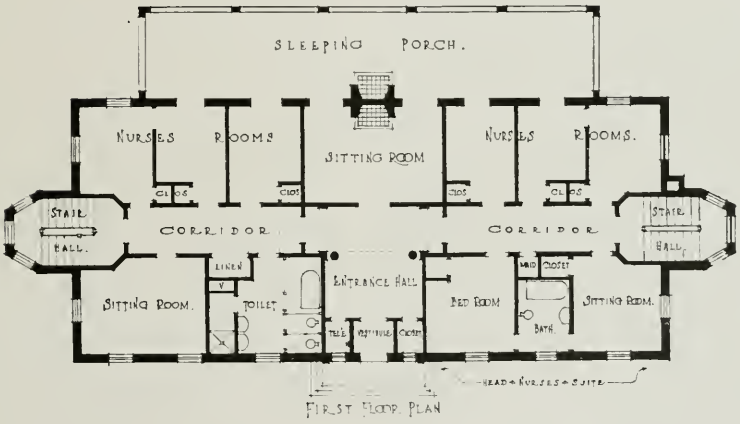
Fig. 3. A sleeping room in the Symmes-Arlingtoo Nurses' Home.

even with the large provision made for the care of sick and wounded in France and by the national government, it was necessary, with the hundreds of thousands of men in the service, for every hospital in the country, more particularly those on the Atlantic seaboard, to be ready for any sort

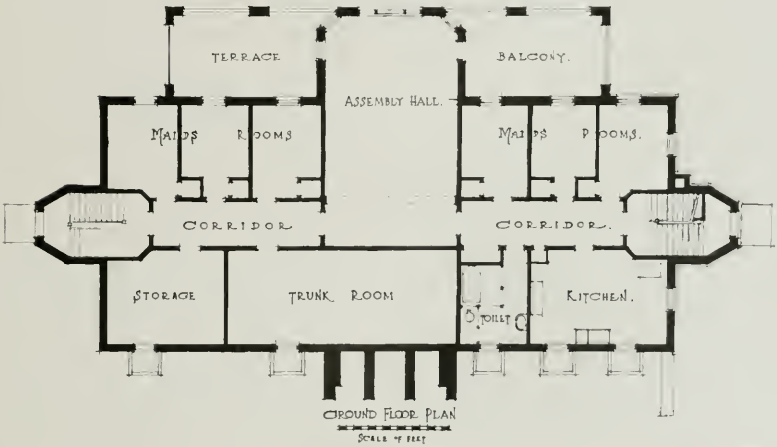
*This is the eighth in a series of articles on nurses' homes. The first, "Nurses' Homes and Some of Their Requirements," by Olof Z. Cervin, appeared in January; the second, "Kistler Memorial Home for Nurses of Lock Haven Hospital," by V. Happersett and Louis H. Rush, in February; the third, "New Nurses' Home for Minnequa Hospital, Pueblo, Colo.," by R. W. Corwin, in March; the fourth, "The Helen Newberry Nurses' Home," by Harriet Leck, in April; the fifth, "The Nurses' Home of the Norton Memorial Infirmary," by Arthur Loomis and Julius Hartman, in May; the sixth, "Nurses' Homes—A Plea for Efficiency in Their Design," by Meyer J. Sturm, in June; and the seventh, "The Nurses' Home of the Hackensack Hospital," by Frederick P. Washburn, in August.



SECOND AND THIRD FLOORS



FIRST FLOOR PLAN



GROUND FLOOR PLAN

SCALE 1/8 FEET

Fig. 4. Floor plans of the Symmes-Arlington Nurses' Home.

of an emergency with the maximum number of beds possible available.

The present capacity of the hospital is twenty-five beds, but with the opening of the nurses' home this will be increased to thirty-five under normal conditions and to sixty or seventy in an emergency. If every hospital could increase its emergency capacity to as great an extent, there would be no need of the cry "not sufficient facilities."

This building, which overlooks the route of Paul Revere's famous ride, is located south of and considerably below the hospital building, on the hill east of Massachusetts avenue, near Grove street, and the location is such that it does not interfere with the outlook from the hospital building or any future extension that may be added to it.

The building is a simple expression of American domestic Georgian architecture, built of red water-struck brick with stone trimmings. On the front which faces the approach to the hospital, it is but three stories high, but as seen from Massachusetts avenue it is two stories higher, as the natural slope of the side hill was utilized to obtain the use of every possible bit of space and daylight. This side presents a feature unusual in buildings of this class, for, along almost its entire length are wide sleeping balconies and from each room opening thereon are wide doors, so that beds may be rolled from the room on to the porch. This gives a large, airy sleeping dormitory at night and, during the day, when the beds can be put back into the rooms, a delightful porch, the view from which, over miles of space, is beautiful.

The building will accommodate in the upper stories, thirty-five pupil and graduate nurses, and in the lower story are rooms for six domestics. Toilet rooms with ample bath facilities, including showers, are provided on each floor, as are also linen, storage and maids' closets.

In the first floor at the front entrance is a large reception hall and opening from this a parlor, which in turn opens on to the balcony. The woodwork of these rooms is finished in cream white enamel and the walls are covered with Japanese grass cloth paper, which, with willow furniture, tastefully upholstered, creates an effect of privacy which makes one feel that he is in a private house instead of an institution. Sitting and sewing rooms are also provided in each story, and in these rooms, as well as in each nurse's room, the color effect on woodwork and walls, and the same feeling are maintained. This homelike atmosphere was desired at the outset by the trustees, and a personal visit will indicate how well it has been carried out.

On the ground floor, in addition to the domestics' rooms, is a large class or assembly room, equipped for lectures or for the relaxation of the nurses when off duty. A pleasing view is had from this room through a large plate glass "picture" window. Adjoining this room is a large kitchen for instruction or work of a light character, and adequate provisions have been made for small laundry work, storage of nurses' luggage, and many other details.

The novel arrangement of the stairs in fireproof staircases is another feature, and the fireproof boiler room in the sub-basement, with its separate entrance, is an interesting detail of the planning.

Nursing is a skilled profession, and the advanced methods of treating the ills of mankind have shown the trustees that, to maintain a successful hospital and training school, every possible facility for education, training, and adequate and comfortable living quarters during the training period must be provided.

The Symmes-Arlington Hospital has not only provided all this with the new building, but has laid a foundation, in so doing, for the future of the hospital itself and for the care of community sickness by skilled, sympathetic women.

The building with its equipment has cost $50,000, all of which has been raised by popular subscription.

In considering the expenditure for this building, it must be remembered that, while providing for the present needs of the hospital, the trustees have had in mind the natural and inevitable increase which must before long come to the hospital from the growth of the community, even if the demands of the war do not force an earlier expansion—and this building provides for the demands of such a growth.

The town is to be congratulated upon this addition to its public buildings and should be proud of the public spirit which has made it possible. The benefit will be shown and shared in the service of trained and capable nurses to the sick of Arlington.

The Royal Naval Hospital, Granton.

This hospital is situated on high ground to the north of the city of Edinburgh. The buildings were originally those of the Leith Public Health Hospital built in 1894. In the summer of 1916 the admiralty took the buildings over for use as a naval hospital. The hospital is built on the bungalow system and consists of four main pavilions, a small centre pavilion, which is now used as an operating theatre, a three-story administrative block, a laboratory, garage, mortuary, steam laundry, etc. A general description of this institution by H. M. Whelan appears in a recent number of the Jour. Roy. Nav. Med. Service, of London.

SUMMARY OF NURSING EVENTS IN 1918

War Demonstrates Need of Sound Training for Nurses—Work of Red Cross in Obtaining Enrollment to Meet Demand of Surgeon-General—Cooperation of Public Necessary to Secure Best Results for Future

By MARY C. WHEELER, R.N., Superintendent of Illinois Training School for Nurses, Chicago

As a background to the profession of nursing we have an innumerable number of hospitals that have started their independent schools of nursing with or without an educational basis and with a varied number of opportunities to be placed before their students. Also, in this background, we have the attempt of the various states to regulate conditions of schools of nursing through registration. In many instances this has led to inspection of schools, which has started a few standards in theory and practice. Out of this registration have also been accumulated some general data for our schools as a basis for comparison.

This background has had to be built, principally, by the nurses themselves and by many of those who have been doing this in conjunction with their intricate hospital positions. The boards of control have not been particularly interested in the schools of nursing beyond the actual needs of their individual hospital. Educational bodies have been slow to realize the educational value in a service which combines the class room with practice in the hospital laboratory, for it seemed so far away and so different from their own immediate problems. The public, as a whole, has been willing to accept the "nurse" for almost any position of trust without discriminating as to her qualifications.

Through our great adversities, however, interest has been aroused in the training of women. It has been demonstrated that actual training is necessary in order to get us to the point where we can control self and place this self in efficient service for others. With but a small amount of warning the nurse was asked to step into line for war service, and, though perhaps not fitted for this big piece of work during times of peace, she has, to the best of her ability, developed her resources and has brought to the front those qualifications which were needed.

The American Red Cross had previously been enrolling nurses, but, upon the demand for nurses by the Surgeon-General's office, the nursing department of the American Red Cross immediately became active in order to meet the tremendous need. The Surgeon-General asked for 25,000 graduate nurses by January 1, 1919, and a force of 50,000 by July 1, 1919. Since May 1, 1917, 13,000 nurses have been sent for overseas service, either in the base hospital units or in various commissions. At present there are 34 Red Cross hospitals (12,364 bed capacity), besides the large number in our cantonments and in the home defense group. Thirty-three thousand graduate nurses have said to the Red Cross, "We are ready; use us."

In order to facilitate the enrollment, the country has been divided into thirteen divisions with a director as the head of each division. The following list, made up September 1, 1918, shows the states which have given the quota of nurses to meet the war demands. Since the publication of this official list the numbers have grown.[1]

PERCENTAGES TOWARD SECURING QUOTA OF 27,000 NURSES

State	Pct. of quota raised	State	Pct. of quota raised
Colorado	100+	Ohio	48
Maryland	100+	District of Columbia	47
California	97	Nebraska	46
Illinois	97	Michigan	44
Missouri	95	Utah	43
Washington	94	Montana	42
North Dakota	91	Arkansas	41
Idaho	83	Connecticut	41
Virginia	80	New Jersey	41
Iowa	76	Texas	36
Wisconsin	74	Maine	35
Minnesota	73	Rhode Island	33
Pennsylvania	72	Kansas	33
Kentucky	63	Oklahompi	33
South Dakota	61	Florida	33
Louisiana	60	Alabama	29
Indiana	60	New Hampshire	27
Tennessee	57	Vermont	27
Massachusetts	56	Delaware	21
New York	55	West Virginia	19
Oregon	54	Mississippi	18
Wyoming	51	North Carolina	15
Georgia	51	South Carolina	15

Schools of nursing all over the country were asked by the Surgeon-General to increase their number, just as far as possible, in the schools, in order to be ready to meet the demands later on. It was also planned that, in case of great necessity, students in their senior year should be loaned to the government for service either overseas or at home. In order to help the situation, the women's committee of the Council of National Defense was asked to carry on a campaign for an increased number of students in the schools, known as the Student Nurse Reserve. Up to the middle of September there were over 8,000 applications for enrollment in this Student Nurse Reserve. Many of these applications were for the Army School of Nursing, recently established, and others who merely signified their desire to enter a school of nursing, were distributed by the special committee for that purpose to schools

[1] Am. Jour. Nursing, Nov., 1918, p. 87.

which were in need of applicants, where the applicant's qualifications would fit the requirements of the school. This move showed not only that it was necessary to know the needs of the schools throughout the country, but also that it was very essential for the women on the committees to realize the standards of the schools. It will also give these committees a great opportunity to know conditions in the schools to which they have sent students and will do much toward righting some of the present wrongs.

A deep interest has been taken in the Vassar Training Camp for Nurses which opened at Vassar College, Poughkeepsie, N. Y., on June 26, 1918, and closed September 13. This time was as a preliminary period before entrance into hospital service. The woman who entered this training camp met a definite qualification which was not ordinarily demanded in the schools of nursing by being on the average an older woman and having had a college education. One hundred and ten colleges were represented in this group of women, and whether or not the adjustment can be satisfactorily made between a preliminary training camp and regular training school duties is a matter to be worked out in the future. The permanent result will go back and rest entirely upon the personality of the woman.

The Army School of Nursing has also been established since last year, making the requirements for entrance into the school somewhat higher than that for the majority of schools of nursing.[2]

It is a well-known fact that there are many things which have come to the hands of nurses which any woman with common sense, a desire for making herself useful, and an appetite for work would be able to do without having definite training in various parts of the nursing service. To meet this need, the government has asked for women to receive some instruction and some practice in the various hospital wards, calling them nurses' aids. The women who have taken up this work with a good background of health, common sense, and a brain, have been of invaluable service in many ways and are to be depended upon greatly. The ones who have taken it up as a fad or as a stepping-stone to climb directly into France have been a great disappointment. An opportunity was given them to show what their training was worth during our recent epidemic of influenza. During this epidemic the hospitals which were willing to receive these patients were strained to the utmost in the care of the same. All women who had any time at all upon their hands were asked to cooperate in meeting this situation. Many mistakes occurred during this epidemic, and many nurses did not live up to their highest points of efficiency. Often, however, it was not because they were unwilling to do so, but rather because they had had no real training in the past. And this would bring us to the point that women, in general, should be not only good, but good for something worth while.

The future holds many questions both for the graduate nurse and for the woman now in training, and, if these questions become answered, the future education of the woman as a nurse must undoubtedly be changed. The matter of reconstruction for all of our institutions is of great importance.

To find out the nursing situation over the land, the Red Cross has been asked to make a nation-wide survey of nursing resources. This survey is of extreme value, and we hope that it may lead to better standardization. The question of training attendants to meet such needs as the care of the convalescent, the care of the chronic, the intelligent overseeing of well children, and many forms of individual reconstruction, outside of surgical and medical attention and some parts of the public health service, may safely be given to the women who met definite qualifications and are willing to be trained for this special kind of work. This must be undertaken within a short time, and plans are already on the way for developing a course for attendants.

The public health demands from all parts of the country are very pressing. Schools are urged to incorporate special public health courses in their curricula in order to have their women meet this particular need.

The question of rank for nurses has been placed in the Lewis-Raker bill, which is now in the hands of the senate military affairs committee. Plans are on foot to care for the sick nurses who are returning to us from overseas and also to place in various positions nurses who will be in need of employment when they are discharged from the ranks of the army.

In many instances the public has learned to be less selfish in the care of their sick by allowing one nurse to care for several patients in addition to their own. People have discovered that it is inconsiderate to have two nurses on a case where, with a little forbearance on the part of the patient and a little care extended by the family itself, they can very nicely get along with one, thus reducing the number of nurses on private duty and increasing the number in the various institutions where they are badly needed and in public health work. Doubtless not all of our

[2] For a detailed account of this piece of work please see THE MODERN HOSPITAL, November, 1918, pp. 410-413.

nurses will return from overseas, as many will be kept for an indefinite period, either to meet the need of the retained army or to help in the reconstruction of public health work there.

The public must also realize the great need of financial aid. Money is needed to put through our bill giving rank to the army nurses; to endow schools of nursing which will be known and recognized as legitimate schools with proper educational advantages; to assist in training attendants for peace, war, or reconstruction work; and to help with the public health courses in order to get women ready to take up this important branch of the work. In all of these the interest and the brains of the public are essential, in knowing what schools of nursing need, in knowing that the right type of women are being selected and the right kind of education extended, and in seeing that the nurse is, finally, properly fitted into places where her qualifications will be most useful.

PROGRESS IN INDUSTRIAL HYGIENE AND MEDICINE DURING THE YEAR 1918

Health Protection for Worker Shows Progress in Seven Distinct Fields—Exact Relationship Between Industrial Occupations and Health of Employee Becomes More Clearly Defined—Rehabilitation of Soldier Opens Way for Reconstruction of Industrial Cripple

By FRANCIS D. PATTERSON, M.D., Chief of Division of Industrial Hygiene and Engineering of the Bureau of Inspection, Pennsylvania Department of Labor and Industry

THE year 1918 has seen material progress in the protection of the health of the worker which may be briefly summarized as follows:

INCREASED INTEREST IN THE TEACHING OF INDUSTRIAL HYGIENE IN MEDICAL SCHOOLS

Until this year courses in industrial hygiene have been conspicuous by their absence as a portion of the curriculum of most of the medical colleges. In the judgment of some, entirely too much stress has been laid in the ordinary curriculum upon many diseases, while too little attention has been paid to the more common industrial diseases which are often a material factor in sapping the strength of the worker.

Two of our Class A medical colleges are now giving a splendid course of instruction in industrial hygiene. These are the University of Pennsylvania in Philadelphia and the Harvard Medical School in Boston. The work at the University of Pennsylvania is performed in complete cooperation with the Department of Labor and Industry of that state, so that the students have full opportunity to study carefully the hygiene and sanitation of the factories.

Another important factor in attracting the interest of the students of the medical schools to questions of occupational hygiene is the prize which is offered by the American Association of Industrial Physicians and Surgeons to any medical student in a Class A college for the best thesis upon any subject in industrial medicine.

THE ADEQUATE MEDICAL SUPERVISION OF WORKERS AND THE MAINTENANCE OF PROPER RECORDS

This has been a portion of the war program of the United States Public Health Service, which has cooperated with the industries and with the various state labor departments in the effort to secure adequate medical and surgical supervision of employees. The various works surgeons have been appointed officers in the United States Public Health Service at a nominal salary, and an effort has been made to collect reports of the prevalence of disease among employees and the sanitary conditions of industrial communities.

The United States Public Health Service has taken such measures as are necessary to provide adequate medical and sanitary supervision of all establishments which are operated by the Federal government and has, wherever practicable, established the necessary dispensary and hospital facilities, so that employees of the Federal government might receive the best medical and surgical attention.

PHYSICAL EXAMINATION OF WORKERS

The physical examination of workers has received the unqualified endorsement of Mr. Samuel Gompers, president of the American Federation of Labor, and it needs no words of mine to emphasize that this is a wonderful step forward, as it will eventually result in insuring both the physical examination of all applicants for employment and their reexamination at a stated interval, so that defects may be properly and promptly corrected and eventually we may have knowledge of the exact relationship between industrial occupations and the health of the worker.

SCIENTIFIC STUDY OF FATIGUE

The importance of industrial fatigue as a factor in decreased efficiency of the worker needs no comment. A very remarkable study of the means

to be employed to reduce industrial fatigue has been made by the divisional committee on industrial fatigue of the section on sanitation of the welfare committee of the committee on labor, of the advisory commission Council of National Defense, which has been reprinted as Reprint No. 482 of the United States Public Health Reports. No one can fail to gather knowledge from this most excellent report.

SANITATION IN SHIPYARDS

The demands of the war emergency created hundreds of shipyards along our eastern and western seaboard and upon the Great Lakes. The gathering together of these thousands of workers brought problems of sanitation that had to be solved if industrial efficiency was to be maintained.

Col. Philip S. Doane of the United States Army was assigned by the Surgeon-General's Office to the United States Shipping Board and placed in charge of all matters of sanitation, and the extremely competent manner in which he performed his work was a material factor in the building of the bridge of ships.

NEW METHOD OF TREATMENT OF WOUNDS

A group of surgeons working under the direction of Col. Edward Martin of the United States Army devised and developed a very remarkable advance which has been applied to industrial surgery. This is the treatment of wounds by dichloramine-T-chlorcosane, which has been a material factor in reducing the time lost as the result of industrial injuries.

THE REHABILITATION OF THE INDUSTRIAL CRIPPLE

The magnificent results which have been obtained in the physical reconstruction and industrial rehabilitation of the war cripple have emphasized to the industrial surgeons the extreme importance of securing the physical reconstruction and industrial rehabilitation of the industrial cripple.

It has been estimated that there are in this country 300,000 serious industrial accidents a year, of which number a large percentage result in the production of what might be termed "industrial handicaps." In the past, adequate measures for restoring these men to their rightful place in industry have been conspicuous by their absence, and it is our hope that in the future hospitals will be established which will have every known appliance to insure the best possible physical reconstruction, intensive vocational training, and finally, the reemployment of the injured worker, not in his old place, but in a better position. No state can dodge its responsibility in this matter, and a part of the compensation payment for industrial injuries should be, in addition to the monetary portion, this restoration and training.

A YEAR'S REVIEW OF HOSPITAL DRUGS AND CHEMICALS

General Improvement and Gratifying Progress Shown—High Prices Resulting from Chaotic Market Conditions at Beginning of War Experience Considerable Drop—Scarcity of Supply Overcome by Government Activity in Medicinal Plant Cultivation

By JOHN K. THUM, Ph.M., Pharmacist at the Lankenau Hospital, Philadelphia, Pa.

FROM the hospital-pharmacy point of view—and particularly from the point of view of the hospital that manufactures its own pharmaceutical preparations—the matter of drug and chemical supplies for the past year shows a marked change for the better. The chaotic condition engendered at the beginning of the war in 1914, which for a time upset all business, and particularly the drug and chemical markets, was not repeated by our country's entrance into the great war. This was undoubtedly due to the fact that the American business man and manufacturer had adjusted himself to the new conditions and had more or less mastered the situation.

Shortly after the beginning of the war, carbolic acid, which had been selling prior to that time at 14 cents per pound, advanced in leaps and bounds to the remarkable price of $1.50 and $1.75 per pound. The development and progress of the manufacture of this coal-tar derivative in this country has been such, however, that this hospital necessity can now be bought for 45 to 55 cents per pound, with fair prospects of a lower price when the industry is more firmly established. This is only one of many instances in which progress has been made in meeting the needs of the sick.

Up to the present time we have experienced no really serious lack of medicinal supplies. It is true that many things are scarce and, as a consequence, prices are high; yet one is struck by the fact that the prices which prevailed two and three

years ago have decreased nearly 40 percent. When it is considered that this country has always depended to a large extent on Europe for many of the drugs from medicinal plants, it is worthy of notice that the prices of such drugs made practically no advance at the beginning of the war. As the stock in the country began to be used up, however, and shipping transportation was diverted to other and supposedly more important channels, these drugs began to soar in price.

Such important drugs as digitalis, hyoscyamus, belladonna, stramonium, and licorice have by this time become rather scarce, and, were it not for the fact that the government, through the activity of the Department of Agriculture, has interested itself for the last several years in the necessity of medicinal plant cultivation in this country, we would indeed be in a bad way. A special division has been organized by this department for the study of this subject, and valuable information is now available to those who are interested. It is also worthy of notice that in some instances private capital has taken up the matter of medicinal plant cultivation and several of the large manufacturing pharmaceutical houses have started farms for their source of supply for these drugs. Altogether, the past year has shown much progress and promise in developing this important industry.

A great many drugs are obtained from the far East and for obvious reasons are at the present time unobtainable. Among these may be mentioned styrax, which comes from the Levant and is not to be had. A few months after the war commenced, the price of this drug had advanced to $6 a pound. It is used in fairly large proportions in the preparation of compound tincture of benzoin, and it can therefore be readily seen how the cost of manufacturing this medicine helped to increase the expense of conducting a hospital. Multiply this advance in price by the thousand different preparations which are used in the modern, progressive hospital, and then you need not wonder at the constant cry of boards of managers to keep expenses down. A product in all respects similar is now obtainable from the sweet gum tree, a tree which grows throughout the central and eastern United States. American styrax can now be bought at $1.50 per pound and is really superior to the styrax from the Levant.

Camphor is another drug that has been scarce for the last year, and it is gratifying to know that the government is interesting itself in this industry. Some years ago a large camphor grove was planted in Florida by private capital. For economic reasons, the production of camphor from this source was discontinued, but present exigencies make its resumption worth while.

For a time such valuable drugs as veronal, novocaine, salvarsan, and neosalvarsan were very scarce, although an American-made salvarsan, under the name "arsenobenzol," has been obtainable since shortly after the beginning of the war. This was due to the enterprise of a Philadelphia chemist. Since our entrance into the war, the patents held by Germans for the manufacture and sale (as a matter of fact, these drugs were always manufactured in Germany and only sold here), of these drugs were abrogated. Since the beginning of 1918, American manufacturers, taking advantage of the provisions of the Trading with the Enemy Act, have availed themselves of the privilege to obtain licenses from the government to manufacture these drugs, using the original patents. These synthetics, as they are generally called among chemists, are now officially called barbital, procaine and arsphenamine. The label on the containers of these medicines *must* have printed on it these government designated names, although they may also contain the original name. Thus the government has made available to the American physician a number of drugs that are important and absolutely essential for the cure and alleviation of the sick.

Ever since the start of the war, potash has been anything but plentiful, but, if price is any criterion, it is especially scarce at the present time. Practically the whole world has been dependent on Germany for this valuable substance. Immense deposits are available in that country, and naturally the war has cut off this source of supply. While this lack of potash has not in any way interfered in the treatment of the sick, as the sodium salts could always be prescribed in place of the potassium salts with just as good results, it has been a real inconvenience to those pharmacists who manufacture liquid soap. In the making of this soap a combination of potassium and sodium hydroxid is absolutely essential in order that the soap may remain liquid. Sodium hydroxid may be used alone but requires the addition of large quantities of alcohol, which materially increases the cost and makes its general use in the hospital prohibitive.

There is every hope, however, that American ingenuity and initiative will win out in the potash problem as it has in the other problems that have arisen from the war.

Let us make even the casual contact with our fellowmen vital; wherever there is flowing water there is a green spot.—Stephen Berrien Stanton, "The Hidden Happiness."

HOSPITAL ACCOUNTING

The Budget System Applied to Hospital Accounting—The Treasurer's Journal, Cash Book, Income Ledger, Endowed Bed Ledger, Loans and Notes Payable Book, General Ledger and Trial Balance

By CHARLES A. PORTER and HERBERT K. CARTER of the Staff of the Modern Hospital

[Continued from December issue, p. 453]

BUDGET

SUMMARY OF EXPENDITURES FOR 1915 AND REQUEST FOR 1917.

Item	Request for 1917	Appropriation for 1916	Expenditures for 1915	Excess of request for 1917 over expense for 1915
Operating expenses:				
Corporation	$.....	$.....	$.....	$.....
Administration	.....	.....	.....	.....
Wards	.....	.....	.....	.....
Private rooms	.....	.....	.....	.....
Emergency ward	.....	.....	.....	.....
Dispensary	.....	.....	.....	.....
X-ray	.....	.....	.....	.....
Laboratories	.....	.....	.....	.....
Social service	.....	.....	.....	.....
Ambulance	.....	.....	.....	.....
Housekeeping	.....	.....	.....	.....
Steward's department	.....	.....	.....	.....
Laundry	.....	.....	.....	.....
Training school	.....	.....	.....	.....
Genera house and property	.....	.....	.....	.....
Heat, light and power	.....	.....	.....	.....
Total for current expenses	$.....	$.....	$.....	$.....
Capital expense:				
Land	$.....	$.....	$.....	$.....
Buildings	.....	.....	.....	.....
Equipment	.....	.....	.....	.....
Total for capital additions	$.....	$.....	$.....	$.....
Grand total	$.....	$.....	$.....	$.....
Salaries and wages:				
Superintendent	$.....	$.....	$.....	$.....
Assistant Superintendent	.....	.....	.....	.....
Purchasing agent	.....	.....	.....	.....
Head nurses	.....	.....	.....	.....
Special nurses	.....	.....	.....	.....
Nurses	.....	.....	.....	.....
Orderlies	.....	.....	.....	.....
Ward employees	.....	.....	.....	.....
Clerks	.....	.....	.....	.....
Steward's department	.....	.....	.....	.....
Housekeeping	.....	.....	.....	.....
General house and property	.....	.....	.....	.....
Engineers	.....	.....	.....	.....
Firemen	.....	.....	.....	.....
Treasurer	.....	.....	.....	.....
Treasurer's clerk	.....	.....	.....	.....
Other employees	.....	.....	.....	.....
Total salaries and wages	$.....	$.....	$.....	$.....
Supplies:				
Coal	.....	.....	.....	.....
Medical and surgical	.....	.....	.....	.....
Office	.....	.....	.....	.....
Stewards	.....	.....	.....	.....
Miscellaneous	.....	.....	.....	.....
Total supplies	$.....	$.....	$.....	$.....

Fixed charges:				
Taxes				
Insurance				
Miscellaneous				
Total fixed charges	$	$	$	$
General expenses:				
Legal expense				
Current funds for stated purposes				
Grand Total	$	$	$	$

STEWARD'S DEPARTMENT

Item	Request for 1917	Appropriation for 1916	Expenditures for 1915	Excess of request for 1917 over expenditures for 1915
Salaries and wages:				
Supervision	$	$	$	$
Cooks				
Scullions				
Kitchen help				
Miscellaneous				
Dairy Products:				
Milk	$	$	$	$
Cream				
Buttermilk				
Butter				
Cheese				
Eggs				
Meat, Poultry and Fish:				
Beef	$	$	$	$
Mutton				
Pork				
Ham				
Poultry				
Game				
Fish				
Shellfish				
Groceries and Provisions:				
Flour and cereals	$	$	$	$
Bread and crackers				
Coffee, tea, cocoa and chocolate				
Yeast, baking powder, etc				
Confectionery and ice cream				
Sugar, molasses and syrups				
Lard and other shorts				
Spices and flavoring extracts				
Salt, pepper and condiments				
Canned meats				
Canned soups				
Canned fruits				
Canned vegetables				
Miscellaneous				
Fruits and vegetables:				
Potatoes	$	$	$	$
Apples				
Oranges				
Lemons				
Other vegetables				
Other fruits				
Miscellaneous:				
Supplies	$	$	$	$
Repairs				
Total	$	$	$	$

THE MODERN HOSPITAL

Expense and Revenue Statement for Month Ending _____ 191-

ADMINISTRATION EXPENSE		AMOUNT	GENERAL HOUSE & PROPERTY EXPENSE		AMOUNT	HOSPITAL EARNINGS		AMOUNT
Salaries			Heat, Light & Power:			Private Room Patients		
Stationery & Printing			Salaries & Wages			Guests - Board		
Postage			Fuel			Ward Pay Patients		
Telephone & Telegraph			Oil			Special Nursing		
			Lighting			Emergency Ward		
			Repairs			Dispensary		
Miscellaneous			Supplies			X-Ray Fees		
TOTAL - ADM'N			Miscellaneous			Ambulance Fees		
						Telephone Toll		
			Maintenance Grds.			Refuse Sold		
PROFESSIONAL CARE OF PATIENTS			Labor			Miscellaneous		
Salaries & Wages			Supplies					
Staff			Materials					
Supt of Nurses			Miscellaneous			TOTAL HOSPITAL EARNINGS		
Head Nurses			Maintenance Equip't:					
Nurses			Labor					
Orderlies			Supplies			OTHER REVENUE OR INCOME		
Ward Employes			Repairs			Donations Unrestricted		
Miscellaneous			Miscellaneous			Legacies - Unrestricted		
Apparatus & Instruments								
Equipment			Insurance			Income from Invest'ts of		
Medical & Surgical Supplies			Taxes			Endowed Bed Funds		
Dispensary { Salaries			Rent			Partly Endowed Bed F'd		
Dispensary { Supplies			Miscellaneous			General Endowment F'd		
Patrol Lab. { Salaries								
Patrol Lab. { Supplies			TOTAL (G.H. & P.)			Interest on Deposits		
X-Ray - { Salaries								
X-Ray - { Supplies						Miscellaneous		
Social Service { Salaries			DEPARTMENT					
Social Service { Supplies			EXPENSES			TOTAL OTHER REVENUE OR INCOME		
Emergency Ward { Salaries								
Emergency Ward { Supplies			Ambulance - Wages					
			Gasoline			APPROPRIATIONS from Special		
TOTAL (P.C. of P.)			Supplies			Funds to Meet Current Expenses		
			Repairs					
			Steward's Department			S		
			Meat, Poultry & Fish			P		
			Dairy Products			E		
			Groceries & Provisions			C		
CORPORATION EXPENSES			Fruits & Vegetables			I		
			Miscellaneous - Sp'l			A		
Salaries			Training School:			L		
Stationery, Printing & Postage			Salaries & Wages			F		
Legal Expense			Supplies			U		
Interest			Miscellaneous			N		
Miscellaneous			Laundry:			D		
			Wages			S		
			Soap					
TOTAL (Corp'n)			Starch					
			Repairs			TOTAL (OR or I)		
			Miscellaneous					
CURRENT EXPENSES			Housekeeping			TOTAL CURRENT REVENUE		
FROM SPECIAL FUNDS			Salaries			TOTAL CURRENT EXPENSES		
S			Miscellaneous			GAIN		
P						LOSS		
E			TOTAL (DEPT EXP)					
C								
I								
A								
L								
F								
U								
N								
D								
S								
			TOTAL (Col. 1)					
TOTAL (Col. 1)			TOTAL CURRENT EXP.					

Form 25. Treasurer's Monthly Expense and Revenue Statement. Actual size, 12¾ by 14.

BOOKS OF THE TREASURER

The Treasurer should keep a Journal, Cash Book, Income Ledger, Endowed Bed Ledger, Loans and Notes Payable Book, General Ledger, and Trial Balance.

The Trial Balance is made up from the totals of General Ledger accounts.

Forms of entries, accounts, books and statements of the Treasurer are later shown in detail.

Donations, legacies, and investment returns should be paid direct to the Treasurer and acknowledged by him. He should pay all loans, mortgages, notes, taxes, etc., and make payments for securities purchased for investment. In a word, he should handle all receipts and expenditures relating to corporation affairs as well as

THE MODERN HOSPITAL

Month Ending _____ 191__

Surplus and Deficit.

Grand Total - Current Expense		Grand Total - Current Revenue	
Capital Expense		Profit on Investments Sold	
Grounds		" " Hospital Prop. Sold	
Buildings		Amount Charged off Funds	
Furniture & Fixtures		Material - As per Supt's Acct	
Machinery & Equipment		Cash for Loss by Fire, etc.	
Apparatus & Instruments		Capital Holdings Sold	
Miscellaneous		E	
TOTAL		T	
		O	
Supts Uncollectable Accounts		TOTAL	
Treas " "			
Loss or Depreciation Material			
" " " Inst & Fr			
TOTAL		TOTAL	
SURPLUS		DEFICIT	
TOTAL		TOTAL	

Balance Sheet

Capital Assets		Capital Liabilities	
HOSPITAL PROPERTY & EQUIPMENT		Capital Account (Work Orph & Equip)	
Land		Endowed Bed Fund	
Building		Partly Endowed Bed Fund	
Furniture & Fixtures		General Endowment Fund	
Machinery & Equipment		General Fund	
Apparatus & Instruments		O	
		t	
TOTAL		h	
		e	
		r	
INVESTMENTS		F	
Mortgages Receivable		u	
Bonds		n	
Stocks		d	
Real Estate		s	
Miscellaneous			
TOTAL			
TOTAL CAPITAL ASSETS		TOTAL CAPITAL LIABILITIES	
CURRENT ASSETS		CURRENT LIABILITIES	
Treasurers Acct's Receivable		Loans & Notes Payable	
Superintendents Acct's Receivable		Accounts Payable	
Material		Advance Payments by Patients	
Supplies		Overpayments by Patients	
Treasurer's Cash		Unclaimed Wages	
Superintendents Cash			
Interest Purchased			
Prepaid Insurance			
TOTAL		TOTAL	
Grand TOTAL Assets		Grand TOTAL LIABILITIES	
Deficit		Surplus	
Total		Total	

Form 26. Treasurer's Monthly Surplus and Deficit Account and Balance Sheet. Actual size, 11¾ by 14 inches.

make remittances to the Superintendent for operating expenses.

A four-column Cash Book should be used for the average hospital by the Treasurer. The debit headings are: income from investments, donations and legacies unrestricted, donations and legacies restricted, and miscellaneous; and the credit headings are: investments, investment expense,

remittances to the Superintendent, and miscellaneous.

In the large hospitals, where many unrestricted legacies and donations are received, a separate book should be kept in which these are entered in detail and the total posted to the Cash Book at the end of the month. In small institutions a two-column Cash Book may be used.

All cash received is entered on the debit side of the Cash Book, showing General Ledger account and income account (if it is an income entry), to which it should be posted. All cash paid out, as shown by the Check Book, is entered on the credit side and the name of General Ledger account to which it is to be posted shown, as well as the income account if expended as a charge against such.

Reference is made in the folio column of the Cash Book to the General Ledger or Income Ledger page to which the posting was made.

As soon as the Treasurer receives the monthly report of the Superintendent, a check should be deposited to the account of the latter to make up the deficit and to take care of bills payable in order that discounts may be taken and a suitable balance maintained.

Where employees are paid but once a month it is good policy for the Superintendent to draw on the Treasurer for the amount required to meet the pay roll. This has the tendency of reducing the cash balance required by the Superintendent.

It is not necessary for the Treasurer to keep a cash account in the General Ledger, as the Cash Book shows the balance on hand at any time.

The following table gives ordinary expenditures and accounts to which they are chargeable:

Item	Account chargeable to
Superintendent	Treasurer's account with Superintendent.
Taxes	Income account, investment account.
Insurance, prepaid	Prepaid insurance account.
Interest	Interest and discounts.
Interest purchased	Interest purchased account.
Loans and notes payable	Loans and notes payable.
Loans and notes receivable	Loans and notes receivable.
Mortgages payable	Mortgages payable.
Investments purchased (not including interest)	Bonds, stocks, mortgages receivable, real estate, other investments (name).
Legal expenses	Interest purchased account.
Miscellaneous	Sundries or proper account.

The cash received will usually be for items chargeable to the accounts as shown by the following table:

Item	Ledger account chargeable to
Superintendent	Treasurer's account with Superintendent.
Donations, unrestricted	Donations, unrestricted account.
Legacies, unrestricted	Legacies, unrestricted account.
Income from investments held in General Endowment Fund	Income from investments, General Endowment Fund.
Income from investments held in Endowed Bed Fund	Income from investments, Endowed Bed Fund.
Income from investments held in Partly Endowed Bed Fuud	Income from investments, Partly Endowed Bed Fund.
Membership	Treasurer's account with Superintendent.
Income from investments of Special Funds (list each separately)	Income from investments of Special Funds (list each separately).
Income from unrestricted investments	Income from unrestricted investments.
Miscellaneous revenue on income	Proper account.
Cash, sales of investments	Stocks, bonds, mortgages, notes, or other investments (name).
Cash received, loans or notes payable	Treasurer's account with Superintendent.
Cash received, loans or notes receivable	Loans and notes payable account.
Interest purchased	Interest purchased account.
Prepaid insurance	Prepaid insurance account.
Endowed Bed Fund	Endowed Bed Fund.
Partly Endowed Bed Fund	Partly Endowed Bed Fund.
General Endowment Fund	General Endowment Fund.
Special reserve funds (list each separately)	Reserve funds account, proper reserve fund account.
Insurance companies for damages	Surplus and deficit.
Miscellaneous sources	Proper account.

Petty cash funds for the Treasurer and the Superintendent are entered direct from the Cash Book to the General Ledger and held as a Special Reserve Fund.

[To be continued.]

LITTLE JOURNEYS TO PLACES AND PEOPLE WORTH KNOWING

The Seventh Little Journey—To Evanston Hospital, A Beautifully Situated and Fortunately Endowed Hospital, Affiliated with Northwestern University

By MARGARET J. ROBINSON, R. W., Field Editor of The Modern Hospital

EVANSTON is about twelve miles north of the center of the city of Chicago and is the so-called most fashionable suburb of the North shore. It has a population of about thirty thousand people and reflects the cultured atmosphere typical of university towns. It houses considerable wealth. Its streets are well lined with beautiful residences. The people who live in them take a pride in the Evanston Hospital as their own and contribute all the necessary funds to care for its upkeep and its growth.

One July day, in quest of material for another Little Journey, I took the Elevated train marked "Evanston Express" and kept on going until the Elevated was no longer elevated, but ran along on the ground through open fields and past back gardens of the suburban dwellers who had migrated from the town to get better air and a family truck garden patch.

When I finally reached the station nearest the end of my journey, I found myself in the open and nothing that looked like a hospital in sight. Coming up the nearest street I saw a colored boy, a real southern darky, one of the thousands that have been coming to the north lately. I asked him if he would direct me to Evanston Hospital, and he answered this way: "Yes'm, if yo' carry yo'self over that field, it'll throw yo' right up into the front do' ob de hospital."

I carried myself over the field, but it didn't throw me into the front door. There were so many paths and the buildings were so scattered and faced in so many different directions that I could not quite decide which one to enter. I had visions of landing in the wrong place, perhaps of thrusting myself into the kitchens or the back door of the nurses' home or of meeting internes in negligee.

I finally decided to go into one building with a white-pillared entrance and veranda, which resembled a comfortable private residence, because there were several cars parked on the road at the end of the pathway from the front entrance. It proved to be the right guess, for it led me into the office, where I met Miss Adelaide Thompson, the superintendent of the hospital.

Miss Thompson began friendly relations by telling me about the fund of $265,000 which has been raised for a new building for private patients and for better laboratories. This building, when completed, will be so planned that it can give the best of hotel service, as well as all facilities for scientific diagnosis and nursing care.

The superintendent told me that the hospital was very fortunate indeed, and that it had many fairy godmothers and fairy godfathers, living and dead, who had provided for its welfare. There are sufficient funds for its maintenance, and, when the growth of its work requires additional building or equipment, its friends provide for that, too.

The Evanston Hospital owns five acres of land just three blocks from Lake Michigan. The buildings have been put up on the cottage plan. The pavilions are connected by covered bridges, all artistic and blending gracefully with the buildings and the surrounding trees and shrubbery.

Pansy beds flourish everywhere, while hollyhocks cover unsightly places in the rear of the buildings and group themselves in friendly fashion about doorways. There are garden seats and green-painted basket chairs with canopies over them, like the bath chairs used on the beaches of the Riviera.

Each porch and window looks out on some different view of the lake, on the trees and gardens, or the golf grounds.

A central hospital building houses the offices, operating rooms, children's wards, and wards for medical and surgical cases. It is an old building but has been kept in very good repair and shows, in common with the other buildings, a degree of cleanliness remarkable in these days when paint and repairs cost so much and good domestic help is so hard to get.

The children's wards have a delightful open-air room for the feeding cases, and the sick babies look as clean and sweet and contented as their own mothers would wish them to be. In the maternity pavilion, the work is stretching so rapidly beyond the size and capacity of the building that some day, if it is not made larger, the babies will spill over the sides of it.

The hospital maintains an out-patient department and a free dispensary service for medical and surgical, eye, ear, nose and throat cases, and for pediatrics. Much of the hospital service is either free or on a part-pay basis, and the pay rates are moderate enough to bring the hospital care well within the reach of people of moderate

incomes. There is a capacity of 135 beds. Maternity cases may be cared for in four-bed rooms for $2.50 per day, including the care of the baby. Patients who can afford to pay only a part of their expenses pay $1.50 per day, and no deserving case of illness is ever refused admittance.

A well-constructed service building houses the domestic help. Near this are earth tennis courts for the use of the house staff and the nurses.

The nurses' home, known as Patten Hall, is really a home, and not the usual dormitory of an institution. The big living room has a beamed ceiling and a great open fireplace, with a cradle woodbox of logs on the hearth ready to use. The mantel over it boasts of two twelve-branched brass candlesticks. Long cushioned window seats add to the "homey" atmosphere, and on a wall opposite the fireplace hangs a wonderful winter scene of a well-known western artist of Norse extraction who is known for his ability to express snow-blown hills and fields in the rose lights of setting suns.

There is a small, restful, brown-tinted library for the girls, a pleasant lecture room, and a well-stocked demonstration room containing several beds and long tables on a raised platform where demonstrations may be given in the use of utensils and the making of dressings and supplies.

The supervisor's rooms are well furnished and comfortable, and all bedrooms in the nurses' home are provided with a bathroom for each two rooms. In a small office near the matron's suite is the post office, with pigeon-holed letter boxes alphabetically arranged for the nurses' mail. Twelve supervisors and sixty-five nurses are using the home and the extra quarters in the isolation building at present.

Fig. 1. A private room in the Maternity Building.

The dining room at the home is, I think, the least institutional for one in a large hospital that I have yet visited—the kind of a dining room that is, to the girl accustomed to a home of good social standing, like the one in her own home, and, to the girl who has been denied them, an education in the social niceties.

I wish to report, also, that I have never eaten a meal in a nurses' dining room that tasted less

Fig. 2. A scene in the children's ward.

institutional than the dinner I ate at the Evanston Hospital. That dinner consisted largely of corned beef and cabbage, but the corned beef was of the best cut and thoroughly cooked, and there was real English mustard to go with it. The potatoes were new ones, creamed with parsley and butter, and the cabbage was young cabbage taken that day from the vegetable garden. The dishes from which we ate were not thick and had a flowered border around them. Pretty silver and glass decorated the table, and a neat and well-trained maid served us.

Now, we all know that this kind of service is expensive and that a separate dining room for the nurses' home is not the best of economy, but, after all, is it not the best—and are not nurses of the type we want in the training schools entitled to it? And again, are not the people of Evanston, who make this hospital their own, doing a fine thing when they put up enough money to give the nurses who come here for training, affiliated university teaching and the right social conditions?

The junior nurses in training are given class and lecture work at Northwestern University and have the advantage of the laboratories there. In this hospital and training school nursing education is measured at its proper value and the home and social conditions are ideal for the young women who wish to enter there for training.

The contagious pavilion, built within the last few years, shows exceptionally good planning and construction for this kind of a building. On the exterior, the Spanish balconies and the small-paned swinging windows relieve the appearance of its institutional type. The interior has achieved a fool-proof sanitation in the material used, but

Fig. 3. One of the nurses's instruction classes held at Patten Hall.

is neither bare nor uninviting. The ceilings are high, the patients' rooms are of good size, and the ventilation is unusually clear. I noticed no perceptible odors anywhere. The whole building is very light. Bacteria which thrive in darkness will find no friendly corners in which to germinate in this contagious hospital; and, by the way, unlimited soap and water are the disinfectants used to keep out possible cross infections.

The halls, service rooms, diet kitchens, and, in fact, everything but the inside of the patients' rooms are neutral ground, distinctly clean areas. With the use of a careful technique, the isolation of the patient is complete. Large glass windows and doors from each room to the corridor make it easy for nurses and visitors to see patients and talk to them without coming into an infected area. One foot outside of each doorway is the deadline. The day I visited the hospital there were mothers sitting outside of these doors knitting while they talked to the children inside, isolated with diphtheria, scarlet fever, and various other things which had made them subjects for isolation at that time.

The plan for handling infected trays and dishes is a very good one. There is an open window space between each service room and diet kitchen. In this space is a high-pressure steam sterilizer worked with foot pedals, of the same type as the utensil sterilizers used in operating rooms. All dishes which are removed from patients' rooms are placed in the sterilizer from the service room side. After sterilization, they are taken out in the diet kitchen, which is a clean area. The diets are prepared by a clean nurse, who does not come into contact with the patients.

In the basement of the contagious building is a very complete equipment for the fumigation and sterilization of linens, mattresses, and other material which has come in contact with infected area.

When we went back to the main buildings, Miss Thompson took me through the kitchens. These were light and clean and well furnished with plenty of labor-saving machinery—stock pots, vegetable steamers, vegetable cutters, dish washers, dough mixers, and a lot of other things which pay for themselves speedily and save the cook's

Fig. 4. Four newcomers who have helped to swell the maternity rate in Evanston.

temper wherever you have to feed many people at one time. In these days, when domestic help is getting more and more difficult to procure, kitchen machinery is an absolute necessity to every hospital.

A motherly looking woman who had charge of the bakery was just taking a lot of brown-crusted loaves, which positively perfumed the air, out of the oven. The bread was crisp and the inside of it as light in color as loaves used to be before we ever heard of Mr. Hoover. I asked her if that was war bread, and how she managed to make it so good. She told us that the bread was made of a combination of rye, barley, and wheat, that she had experimented for some time before she was able to make a success of it, and that she had come to the conclusion that the success was due to the scalding of the dark flours before mixing the bread. I am passing this suggestion along, because I have tasted some awful experimental war bread on my travels and Mrs. Gilmour's ruling may spare others a like experience.

After our dinner I was shown the gardens—and wonderful gardens they were, even for these days when everybody's back yard is a-blossoming. I don't know just how much space they occupy, but you can imagine that they cover some ground when I tell you that there are plenty of fresh vegetables in season to feed patients, nurses and employees.

There was a whole field of corn, and even rows and rows of head lettuce, cabbage, beets, onions, green beans, tomatoes, and asparagus. Along the side of the garden was a row of trees, then a pathway, then a strip of heavy sod and borders and flower beds. Hollyhocks and delphinium, American Beauties, shaded poppies, Canterbury bells, and purple lantern flowers bordered in riotous confusion the eatable beauties of the gardens. Hollyhocks and delphinium, asparagus fern and purple topped beet greens—that doesn't sound like the end of a hospital story, but it is.

FROM OUR FIELD EDITORS' NOTEBOOKS

A Hospital Maintained by the Colored Race, Affording Nursing Education and Internship to the Negro—An Older Hospital with Progressive Spirit That Has Gradually Expanded Into a Most Modern Institution

The Miami Valley Hospital, Dayton, Ohio

The Miami Valley Hospital buildings are strung along at uncertain intervals in a homelike and uninstitutional way on a bluff over the Miami Valley. The front entrance is at the back and a main street ambles along in a friendly way among the buildings. Here and there plenty of lawn and shrubbery and garden space blend them all together in one harmonious whole. There doesn't seem to be any way to get a good photograph of the hospital buildings as a whole, unless you get a view from an aeroplane, and Dr. Crew, the superintendent, has not yet tried that, although Dayton is the home of the birdmen.

Fig. 1. Entrance to main building of Miami Valley Hospital.

The Miami Valley Hospital originally started as a Deaconess Home and hospital, but in 1903 it became a general public institution under the non-sectarian control of The Miami Valley Hospital Society. Since that time, the plant has been enlarged by several modern buildings, among the additions being the Snyder Memorial Service Building, the Smith Memorial Building, a building for laboratories, and the Patterson Surgery Building. Special provision is also made for the isolation of venereal diseases.

The vine-covered entrance to the main building is beautiful. It ought to take away the terror of the hospital from any frightened prospective patient and give him courage and faith in the good will of the hospital itself.

The Mary Belle Walter Nurses' Home, an endowed memorial building, gives adequate living quarters to the training school. It is now being enlarged to include many more single bedrooms for the nurses and new facilities for lectures and demonstrations, for teaching diet kitchens and for laboratories. The home is right on the edge of the bluff on the river, and the exterior has been made lovely with climbing vines, shrubbery and grassed terraces.

On the top of the new addition to the home is a splendid sleeping porch and roof garden and a solarium as well and attractively furnished for the girls who use it as a first class summer hotel or a well-ordered home of wealth. This room has flower-covered cretonne furnishings of gray hand-finished wood and willow, and flowered hangings, as well as fern baskets, bird cages and tea wagons of the same gray willow. The artistic furnishings, electric fixtures, soft-toned rugs, and the view of the river help to make the nurses' living rooms the most attractive I have seen.

The Patterson Surgery Building is unusually well built for its purpose. The upper floor contains the operating rooms and all other necessary rooms for a complete surgical service. Almost the entire building is walled and floored with marble. No expense has been spared to make it not only durable and sanitary, but artistic as well.

We speak of beautiful operating rooms and usually mean the beauty that comes from good equipment and lighting and perfect cleanliness. But the beauty of the main operating room in the Patterson Surgery is something more than that. Its marble walls and marble-domed alcove with the leaded glass windows give it an unusual artistic beauty of its own. The vines that make the outside of the hospital beautiful climb right over the window sills of the operating room. A marble-lined sterilizing room must be "a joy forever." You expect to see a sterilizing room with some paint peeling off somewhere from constant steaming, but you do not find it in the Patterson Surgery. There isn't any paint to peel off.

The lower floor of the Patterson Building takes care of the dispensary and the out-patient department and contains radiographic laboratories, dressing rooms, offices, and examining rooms for out-patients.

The Miami Valley Hospital is a shining example of the growth of an older institution that gradually adds new methods, new buildings, and new equipment and steadily raises its standard and its usefulness. Every department of the hospital gives one an immediate impression of active progress. The trustees and staff, Dr. Crew, the superintendent, Miss Eleanor Hamilton, the principal of the training school, and the capable assistants are all very much alive and moving forward.

The Frederick Douglass Memorial Hospital, Philadelphia

The Frederick Douglass Memorial Hospital in Philadelphia is one of the very few hospitals in the United States where men and women of the colored race may obtain internship and nursing education. This hospital is located in the section of Philadelphia which has large congested districts of negro population and is maintained largely by the funds raised by these people to help in the care and education of their own race. Dr. Nathaniel F. Mossel, the medical director and superintendent, in the last annual report of the hospital printed, makes a plea for further education for his people in the medical and nursing profession. He says, "Most avenues of employment other than that of domestic service are closed to colored women. In failing to extend equal advantages of proper medical education to colored people, the white people in authority not only rob them of a civic right for which they have fully paid, but their continued and forced ignorance of medical subjects will cause these very colored people to endanger the health and happiness of their white neighbor, since both are so closely associated, especially since large numbers of colored people are employed in domestic service."

There are in Pennsylvania more than 250 hospitals; of this number 166 receive state aid. The money in the last analysis comes from the pockets of the poor people, yet there is but one properly equipped hospital in the whole state of Pennsylvania where a colored graduate in medicine can be admitted to an internship, notwithstanding the fact that a year's internship is obligatory for registration. This hospital has capacity for upward of one hundred beds, twenty-five nurses and four interns, and it can not satisfy the demands made upon it by graduates in medicine seeking internship and high school graduates asking to become nurses.

Fig. 2. Main operating room of the Patterson Surgery.

The Douglass Memorial Hospital is on the list of approved hospitals given by the Pennsylvania Bureau of Medical Education and Licensure. The training school for nurses which it conducts fills an actual need for properly qualified colored women nurses to work among the sick of their own race.

DENTAL TREATMENT FOR WARD PATIENTS

Many Diseases Attributable to Bad Teeth—Work of Recently Established Dental Department Shows Need of Better Dental Care Among Patients

By L. A. SEXTON, M.D., Superintendent Hartford Hospital, Hartford, Conn.

It has been the experience of all leading practitioners to meet many persons who have consulted all the specialists of this and other countries, spending in many instances small fortunes to discover ultimately that all their troubles arose from bad teeth. The literature during the past few years has cited many authentic cases in which obscure diagnoses have been cleared up by the removal of bad teeth. The possibilities that may arise from dental conditions are too numerous to mention. This fact is now so well established that further comment is unnecessary.

In our annual report of a year ago, we emphasized the need of a dental department in the Hartford Hospital, and one of our benefactors came forward with sufficient funds to equip such a department thoroughly, with the understanding that the hospital would maintain a dental intern on the same basis as other members of the house staff. This department was equipped with the latest apparatus, an intern was secured, and work was begun July 1, 1918. Since that time, every ward patient whose physical condition would permit of it has been given a routine dental examination.

In the first three months of this service, during which time we have been getting the work organized, 525 examinations have been made, and 401 operations and treatments held. These figures clearly indicate the great need for better care of the teeth among this class of patients.

It is to be hoped, too, that the instruction received in this department will be far reaching in its benefit, not only to the patients themselves, but to their families as well.

We are glad to be among the first of the institutions in the country to offer routine dental treatment, free of charge, to all ward patients.

The MODERN HOSPITAL

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What a Laboratory of Experimental Social Science Might Mean to the World

We spoke last month of the opportunity which lies open in Belgium—an opportunity not merely to give—or, better, to pay a debt—but also to gain. We suggested that, in aiding Belgium to reconstruct her national life, this country and the rest of the world might well gain light on some of the most pressing problems of the day. It may be worth while to analyze this possibility a little further.

The Great War is over. Is the world going to be the same, except for the changes on the maps and the new chapters in the histories? There are few who do not feel convinced that the past is gone forever, and that the future holds more changes than we can yet realize. We hope for peace; but do we even expect tranquillity? The instinctive resentment and terror inspired by the very name of one of the political parties in a reborn realm on the other side of the ocean testify to the general apprehension that the forces which are now shattering three empires from within may not expend themselves without affecting—perhaps very powerfully—other countries of the world.

What do we know of these forces? They have just produced the greatest war in history. No one willed such a catastrophe; the blind agents who produced it are seeking cover, like amazed vermin, from the destruction they have wrought. Its origin is as independent of human volition as an epidemic of scarlet fever or smallpox; but, whereas we can to a certain extent foretell and control the course of scarlet fever or smallpox, our boasted science did not enable us to foretell or to control this infinitely more deadly epidemic. Nor does it enable us to foretell or to control the course of the conditions which are going to arise out of the war. What are those conditions? Is the Great War to be followed by equally great social changes? If so, what is the nature of those changes? Do they imply danger to organized society, and, if so, in what does that danger consist? Anyone who attempts to answer these questions categorically at present simply darkens counsel by words without knowledge. All that we can say with certainty is that society has been and is subject to stresses whose existence we know well, but of whose precise nature, degree, extent, and effect we are as ignorant as a blanket Indian is of the life history of the tubercle bacillus that decimates his tribe; and that, in consequence of that ignorance, we are very probably exposed to unknown perils and likely to use precisely the wrong method in attempting to avoid those perils. If we had a fraction of the exact knowledge in regard to social reactions that we have in regard to physiological reactions, we might hope, through its use, to avoid at least some of the dangers on which imagination is reluctant to dwell, but to which ignorance almost certainly exposes us. Unfortunately, no laboratory of experimental social science as yet exists, nor has there been hitherto any place where such a laboratory could be set up.

Fortunately—most fortunately, if we have the resolution to seize it—one of the by-products of the war is an opportunity, unprecedented in the history of the world, to set up such a laboratory. Belgium, swept practically clean of institutions, but sharer in every respect of our own international traditions, desires to work out a system of new institutions, better adapted than the old to the human needs which they serve. She has invited our aid, which it should be our pleasure and privilege to give as a small return for the service she has already rendered to civilization. Already repaid, however, we are offered payment manyfold over again, for is this not our laboratory with its culture medium ready to our hand, and does it not offer us hope of solving some of the most dangerous of our problems, provided we set about it quickly and earnestly enough? It is true that comparatively long periods of time are required to obtain valid results in observation of social phenomena. Events may not wait for us; our

experimental results may come too late. Yet the mere fact that somewhere in the world these problems are being carefully and dispassionately studied ought not to be entirely without effect in ameliorating the bitterness and avoiding some of the destruction which usually precedes social reconstruction.

It may be asked what all this signifies to the hospitals. The answer is that, if the hospitals are to be more than repair shops, raised above the dignity of the umbrella mender's solely by the amount of knowledge and the technical skill required in making the repairs, they must furnish their contributions to the solution on which so much depends. They have much to contribute—the laboratory tradition, the laboratory method, the scientific spirit. They have everything to gain by appreciating their own rightful places in the forces of progress.

Unofficial Complaints from the Board of Management

A correspondent in our Queries and Answers department complains of meddlesome interference on the part of committees from his board of directors. Sympathy is due the unhappy hospital superintendent who has on his board members who make a practice of visiting the hospital and wards at irregular hours, questioning employees through interest or curiosity and making much of what they find out. Very often their discoveries are presented at the next meeting in the form of complaints intended to convince other members of this board that the complainants alone are on the job. Then, again, other board members are constantly writing letters conveying unofficial complaints on pet subjects, usually of trifling importance.

Provided one has the courage of his convictions, there is a cure for this. One superintendent has changed his board from critics to staunch supporters by the following procedure: The irregular letters were ignored. Soon it was asked why these important communications were left unanswered. This started the ball rolling at the next board meeting. The superintendent pointed out that, if he was not a figurehead, the employees must take their orders from him and not from individual members of the board. Would it not be a better policy, he asked, if members of the board visited the wards, etc., in company with the superintendent, who would be able to answer their criticism at first hand? The board members were prominent business men in their community, and not one of them would have tolerated interference in his own business; so they could appreciate the arguments against appointing a superintendent and then tying his hands by interference.

The superintendent who takes this stand will not fail, for the majority of his board will themselves soon insist that those who have been in the practice of committing this annoying and almost unpardonable sin, must stop. Insist that complaints that are made at your hospital be made official. Unofficial complaints should be treated as anonymous letters. It will be surprising how soon many small complaints that are in the habit of coming to the ears of the superintendent will stop.

A Problem in Efficiency

We of the twentieth century worship efficiency —at least, we think we do. Our whole idea of efficiency really centers about the product. How can we turn out the largest number of paving bricks, or pigs of lead, or bolts of cloth? Let us see how we can speed up our machines to the highest point with the least loss of friction and the lowest expenditure for power, to turn out products as rapidly as they can. That has been our idea of efficiency.

Gradually the industrial world has been overtaken by the afterthought that, as no machine operates itself without the intervention of human beings, the human element is also a factor in efficiency. Still, the core of the problem has been the product, not the producer, and, as the machine was the element in the problem first studied, it remains the pattern and type of efficiency. So-called "scientific management" quite frankly aims to standardize human operations as the operations of a machine are standardized, to the end that these operations may produce the largest possible quantity of product.

Is this efficiency? Does the regime of productivity, under which the present-day world is run, coincide with that of efficiency? All the present and future possibilities of usefulness for workers are subordinated to the one necessity of "getting the work out." Men and women who can not "get the work out" are thrown on the industrial scrapheap, mere refuse to be shoveled out of the way.

A human rubbish heap is a very expensive institution to maintain, and, when there are really potentialities of usefulness in much or most of the rubbish, the question of the efficiency of a system that maintains such a scrapheap becomes embarrassing. What if we were to begin the study of efficiency from the other end—with the producer, not the product? What if, instead of saying "How can we produce the largest amount

of glassware, or ironware, or woodenware?" we were to say "How shall we raise this man or this woman to the highest point of total efficiency, physical, mental, and moral—efficiency not merely as a producer of this or that specific commodity, but as a contributor to the world's total assets—not merely as an industrial factor, but as a citizen, a neighbor, a father or mother, or other member of the family?" The question is utopian and visionary, you say. Very well, we dismiss it, merely calling your attention, in passing, to the first article in this issue, which describes "what sick and crippled men are doing for the Ford Motor Company."

The Ford Motor Company at last accounts was a solvent concern, devoted, not to philanthropy but to the production of motors at a safe and sane figure of profit. The Ford Company has found it thoroughly practical and financially profitable to study the possibilities of efficiency in men who would ordinarily be "scrapped" by most industrial concerns; and, in so doing, it has apparently solved—though quite empirically and unscientifically—a little fragment of the vast problem at which we hinted a little while ago. Is this not a problem for the "laboratory of experimental social science" of which we spoke in another editorial? And is it not just possible that unbiased study of this problem might discern a basis for a safer and more stable industrial order than the present?

Friendliness in the Hospital

We are told that first impressions are the most lasting. In no case is this so true as in the case of a general hospital. The majority of large general hospitals depend for their very existence on public opinion, and it behooves every superintendent to use his utmost endeavors to foster a friendly feeling toward the hospital among the citizens of his community.

There is only one way to attain this end, and that is by the closest attention to details, beginning with the inquiry desk, door porters, and switchboard. People do not come to the inquiry desk of a hospital for pleasure. They come to have their questions answered, and they expect a civil, intelligent answer. If illuminated with a smile, so much the better. The necessity of personal supervision is annoying to the busy superintendent, but this annoyance is not to be compared with that of everlastingly listening to complaints. Furthermore, one never knows what harm may be done by the rudeness or inattention of an irresponsible employee. A fifteen-dollar-a-week clerk may have it in her power to alienate a fifty-thousand-dollar endowment.

By an odd coincidence, several communications emphasizing this point have come to the editorial desk almost at the same time. One of these is the charming little paper by Mr. Asa Bacon on "The Heart of the Hospital," published elsewhere in this issue. We suggest that readers turn to it and then turn back and read this pointed remark from another superintendent:

"It may be all right for hospital superintendents to be so cold and unapproachable that the frost stands out on them like a pipe in a refrigerating plant, but if you will watch their hospital reports and deficits you will usually find that they are howling for additional endowment."

Americanization Work in Hospitals

Several of the hospitals in this country have done and are doing an excellent work in the Americanization of foreign-born patients and employees. On page 354 of the November issue we described the activity in this field of Lakeside Hospital, Cleveland, which employs a teacher to teach convalescent men and women to read and write the English language. The same hospital also conducts work in elementary arithmetic and the grade subjects. Americanization, however, does not mean conducting classwork merely; it includes anything and everything which is influential in eventually winning every immigrant, man and woman, with whom there is a chance, for America. We should be much indebted to any institution doing work of this kind for information in regard to the methods employed and the results secured.

A Nurses' Home With Some Commendable New Features

The Symmes-Arlington Nurses' Home, described on page 26 of this issue, presents some very attractive original features, chief among which are the wide sleeping porches. These porches certainly should go far toward making the life of the nurses at Symmes-Arlington Hospital wholesome and pleasant.

Some improvements in the plans may suggest themselves to practical administrators. For instance, since it was found necessary to house the domestic help in the basement, where the nurses' assembly room and kitchen are also located, would it not have been preferable to place the two latter rooms together and to segregate, so far as possible. the quarters for the domestic help with their toilet and bathing facilities? Awkward and undesirable complications sometimes arise out of confusion in such architectural arrangements.

We call attention to this small point, not be-

cause we wish to disparage an excellent set of plans, but because, to the best of our knowledge, no plans yet drawn have embodied perfection, and we believe that nothing is more helpful than a frank discussion of the defects, as well as the merits, of any plans to be studied. Architecture —and hospital architecture, in particular—is too often a sealed book to trustees and others who are responsible for hospital construction. We feel that the highest compliment we can pay to the plans which we publish—and publication, of course, implies faith in their value—is to assume that they are substantial enough to endure candid and searching criticism.

Venereal Disease Clinics in Pennsylvania

Information received from the Pennsylvania Bureau of Medical Education and Licensure is of considerable interest in connection with Mr. Davis' current series of articles on clinics for venereal diseases. Of 152 Pennsylvania hospitals to which a questionnaire on the subject was addressed, 74 maintain genito-urinary dispensaries; 154 have laboratory facilities for studying smear preparations, and 115, for performing Wassermann tests; 133 are equipped for intravenous administration of the newer remedies for syphilis, and 144 expressed willingness to assist in restricting or limiting the movements of persons admitted to their services who might be a menace to the public health. The total number of cases treated in these hospitals during 1917 was 11,161. It would be interesting to know how many other states can show as much activity along this line as Pennsylvania.

Enlarging the Field of the Hospital

Three of the most interesting articles in this month's issue of THE MODERN HOSPITAL appear in the Department of Dietetics and describe the independent working out at three widely separated points—Boston, Chicago, and Minneapolis—of one very important principle. This is the principle that the hospital is the logical educational center of the community in health and hygiene. The three cities mentioned are applying this principle through their departments of field dietetics, with most interesting results.

The family diet is, of course, a very large factor in the family health. In many cases the family health suffers because the mother or other purveyor for the household does not understand its food needs or does not know how to prepare the foods needed. In other cases, the family pocketbook suffers because the family purveyor does not understand how to carry out the doctor's dietary prescriptions without spending an excessive amount. Here the dietitian comes in as educator and interpreter. The work of Miss Gillett in Boston, Miss Joseph in Chicago, and Mrs. Titus in Minneapolis is well worth study. We hope to learn of more such work in other cities.

TRAINING SCHOOL OF PSYCHIATRIC SOCIAL WORK

Needs of Military Hospitals Present Problem of Emergency Training for Social Workers—Intensive Instruction Course Given at Smith College Entirely Successful

During the last ten or twelve years the number of social service departments in hospitals of this country has grown from two or three to over two hundred. But, strange to say, education of social workers has not kept pace with the growing appreciation of the value of social work in hospital practice. Few attempts have been made to give special training for work with medical cases, and no systematic training for social work with mental and nervous cases appears to have been undertaken previous to the course offered by the Training School of Psychiatric Social Work, except an apprenticeship training given in the social service section of the psychopathic department of the Boston State Hospital to five or six students at a time. Since the supply of specially prepared workers to meet the demands of civilian hospitals is by no means sufficient, the necessity of emergency courses to meet the needs of military hospitals is clearly indicated. Even before the present course was started, the need for a number of psychiatric workers was expressed in the Division of Neurology and Psychiatry of the Surgeon General's Office.

The National Committee for Mental Hygiene, in view of the undoubted future need of large numbers of lay workers to assist physicians in the reconstruction work for war neuroses, appointed a subcommittee of its war work committee to consider the matter, consisting of E. E. Southard, M. D., Boston, chairman; William L. Russell, M. D., New York; L. Pierce Clark, M. D., New York; Walter L. Fernald, M. D., Waverly; and William A. Neilson, Ph. D., LL. D., Northampton. At about the same time, Smith College, which was considering several war courses for a possible summer school, became interested in the subject. The result was an eight months' course, consisting of two months of intensive instruction, given at Smith College, Northampton, in July and August, and six months of practical work in various centers. An appropriation from the Permanent Charity Fund, Boston Safe Deposit and Trust Company, trustee, made it possible for the trustees of the Boston State Hospital to release the chief of social service of the Psychopathic Department on part time to serve as director of the training school.

A remarkably fine group of women were attracted to the school, averaging high in personal effectiveness and intelligence. There were sixty-three students, who came from twenty-one states and twenty colleges. Forty-eight had been employed in various occupations, as follows: teachers, 12; social workers, 16; librarians, 3; secretaries, 3; students, 10; other occupations, 4. Ten students had already done the required practical work, five were advised not to go on, two were obliged to drop out, and forty-six are now engaged in the practical work of the

course. The practical experience consists of social case work under direction in hospitals and social agencies dealing with psychiatric cases. The forty-six students, who are now engaged in the practical work of the course, are placed as follows:

Baltimore	
Phipps Clinic	6
Boston	
Boston Dispensary	2
Boston State Hospital	3
Massachusetts General Hospital	3
Psychopathic Hospital	8
Red Cross	1
Brooklyn	
Brooklyn State Hospital	1
New York City	
Charity Organization Society	5
Cornell Clinic	2
Manhattan State Hospital	6
Neurological Institute	5
Philadelphia	
Society for Organizing Charity	2
University Hospital	2

The instruction consisted of courses in sociology, including social case work, psychology, including mental testing, and social psychiatry, which were all carefully correlated and directed toward the practical object of the training, that is, to prepare social workers in dealing with neuropsychiatric cases to perform three functions—(1) to secure social history essential to medical diagnosis by interview or correspondence with informants or by interviewing patients; (2) to assist in the reeducation of patients in hospital if pressure of work upon the physicians makes such lay assistance desirable; (3) to undertake the social readjustment of discharged patients.

The course in social psychiatry, conducted by Dr. Edith R. Spaulding, director of the Psychopathic Hospital, Bedford Hills Reformatory, was a completely new experiment. The course was planned as a whole with the different topics treated by visiting physicians. There were twenty-five lectures in the course by physicians eminent in psychiatry in this country and in Canada. The difficulty of giving such instruction to a group of young women without previous preparation was recognized; and it was the general opinion among the lecturers that the course was entirely successful. Clinics held at the Northampton State Hospital were an important part of the instruction.

OCCUPATIONAL THERAPY, VOCATIONAL RE-EDUCATION AND INDUSTRIAL REHABILITATION

Conducted by DOUGLAS C. McMURTRIE, *Director Red Cross Institute for Crippled and Disabled Men* and ELIZABETH G. UPHAM, *Advisor in Occupational Therapy, Milwaukee-Downer College.*

TRAINING IN MOTOR MECHANICS FOR CRIPPLED SOLDIERS

Choice of Trades Shows Automobile Mechanics a Universal Favorite with the Men—America Follows Example of Other Belligerents in Offering Training Courses in This Popular Subject

BY DOUGLAS C. McMURTRIE, Director, Red Cross Institute for Crippled and Disabled Men, New York City.

Motor mechanics has proved a most popular subject of instruction for crippled soldiers who are being retrained to become self-supporting, self-respecting workers. In fact, the trade is almost too popular, say directors of Canadian schools in which hundreds of disabled soldiers are today being trained in new occupations.

Practically every Canadian soldier who is asked to choose from among the various trades in which classes are operated selects automobile mechanics. But most of the men have to be dissuaded from their intention and turned into other channels of industry. Otherwise, every crippled soldier in the Dominion would be looking for a job as automobile mechanic after he had completed his course of training, and the supply would far exceed the demand.

Canada, England, Germany, and India are among the

Disabled American soldiers learning automobile repairing at the reconstruction hospital, Fort McHenry, Md.

belligerents that offer training courses in motor mechanics to the disabled men of their own forces, and America, in line with the program of reeducation that she has adopted, is teaching her wounded and disabled soldiers automobile repairing. At Fort McHenry, where the United States operates a large reconstruction hospital, one of the trades taught to convalescent soldiers is automobile mechanics. A one-armed or a one-legged automobile mechanic will not be a new thing under the sun once the general public has been committed to the principles of reeducation.

In British Columbia gasoline-engine classes were organized soon after the wounded began returning from overseas. Vancouver, Victoria, Esquimault, and Westhaven provide instruction in motor mechanics. In Victoria the Military Hospitals Commission and the board of education together operate a fully-equipped motor repair shop in which men who wish to become chauffeurs are taught. Men trained in this course conduct a well-patronized jitney stand in the town. Those who wish a thorough course preparing them as motor mechanics are sent to Vancouver, and later to the new workshops at Esquimault and Westhaven. The Military Hospitals Commission has made an arrangement whereby war cripples at Vancouver are taught driving at an excellent automobile school in evening classes. Then, too, through the generosity of the owner of this school, any disabled soldier may attend his day classes free of charge. Several men from other parts of British Columbia are kept in Vancouver on a maintenance allowance while receiving training.

There is a big field for workmen in this trade in Saskatchewan, as there is through all the west, and thorough courses are given for war cripples by the University of Saskatchewan. Another course is at the Provincial Institute of Technology and Art at Calgary. Disabled men so trained compete successfully with the average sound mechanic. One soldier, who lost his right arm, is preparing with his chum to have a small flour and grist mill in one of the centers of the Peace River district. His course in automobile mechanics and gas engineering will enable him to take charge of the power plant (stationary gas engine), to run a wood-cutting plant, and to mend automobiles as a side-line. His chum will attend to the milling proper.

While the wounds of English soldiers and sailors are healing at Queen Mary's Convalescent Hospitals at Brighton and Roehampton, the men are afforded the opportunity of learning motor mechanics. The workshop at Roehampton is fitted up as a model garage in charge of disabled men who, besides being skilled instructors, understand the special problems of the war cripple. A "Briton" motor chassis, working models of engines, three center drilling and turning machines, a drilling machine, and benches fitted with the vises and tools needed in repair work are included in the equipment. An electric motor gives power for the machines. The class has a 15-20 horse power Darracq motor car for instructional purposes.

Germany, too, has excellent training courses for war cripples who take up motor mechanics. At Düsseldorf on the Rhine, by the cooperation of the provincial and city administrations and local welfare societies, war cripples are being trained in many skilled trades. Here the course in automobile mechanics was established at the request of the motor-repair shop owners who needed workmen and could not obtain able-bodied men. Within a very few months the pupils of the first class had successfully repaired fourteen different types of motors whose mechanisms they understood thoroughly.

Even in far-off India, the trade of automobile mechanics takes hold of the imaginations of the natives. It must be a curious sight indeed to see India's disabled sons repairing an automobile or studying the intricacies of mechanics in the shops that are operated at Queen Mary's Technical School in Bombay. These curly-bearded, olive-skinned warriors will not be left on the highroads to beg, after they have served their country, but will be trained for useful trades in which their physical handicaps do not prevent them from competing with able-bodied men.

* * * *

THE OCCUPATION CURE FOR SHELL SHOCK

Substitution of New Ideas Is the Important Part of Treatment—Physical Training Is Secondary

Shell shock and its treatment is the subject of a very interesting paper by Dr. W. Allen Starr, emeritus professor of neurology, Columbia University, in a recent article in the *Touchstone*.

"The most extreme type of neurasthenia," is his description of this dreaded affliction. It consists of an almost complete mental paralysis coupled with great physical depression. Deep, stolid brooding gives way at times to great mental and emotional excitement, but at all times the patient is without control of his faculties. His whole mental state is governed by his memories, conscious and unconscious, of past horror.

The way to recovery, obviously, lies through the mind, and the physical basis of recovery though important is secondary. The only way in which one idea can be driven out is by the substitution of a new one, and so the whole procedure of treatment is based upon the creation of new interests in the patient's mind. According to Dr. Starr, what is necessary is "an occupation cure rather than a rest cure."

What occupation is chosen depends, of course, very much upon the patient. Whatever it is, two things are necessary—it must elicit the patient's interest and it must require attentive effort to insure success. Physical work, such as building and gardening, mechanical work with machines and engines, intellectual work, such as music and architecture require—all are good, depending on the man. Every element of work—pay, encouragement, and competition—which will elicit interest and stimulate exertion, must be utilized.

Hand in hand with the mental training which is to bring the shell shocked soldier back to normal, should go physical care of the best sort. "Good food, good country air, long-continued hot baths followed by cold showers producing a circulatory reaction, massage, physical training and out-door exercise—hydrotherapy and electro-therapy have beneficial results," according to Dr. Starr, though he is careful to warn the reader to hold them to their secondary place. Mental and emotional training is the important thing, and, in this connection, Dr. Starr emphasizes the importance of removing the patient from his family whose sympathy is too likely to revive rather than dispel dangerous memories.

Men whose minds have seemed completely gone as the results of shell shock have been trained back to normal life, so that it seems no case is hopeless. The one thing necessary in all this treatment is the constant, firm belief that help is to follow. "Here the personality of one who directs the cure is all important," says Dr. Starr. "A firm will, an intelligent sympathy not too emotional, a confident power in direction and assertion, and a conviction of success which is contagious, these are the elements in directing mind which will aid in the achievement desired. 'Faith can move mountains,' and faith in recovery will go far to secure it."

OCCUPATIONAL WORK AMONG MENTAL PATIENTS

The Principle of Class Treatment with Individual Attention Yields Excellent Results—Emphasis Placed on Recreation and Diversion as Well as on Occupation

By HENRIETTA G. PRICE, Occupation Department of the Henry Phipps Psychiatric Clinic, The Johns Hopkins Hospital, Baltimore, Md.

The occupation department of the Phipps Clinic was started when the clinic was first opened five years ago.

Our general plan is to arrange that each patient who is able to do so shall have definitely prescribed work each day under an instructor, and work planned to be carried out by the nurses on the wards.

The leading principle of Dr. Adolf Meyer, director of the clinic, is the training in habits which yield satisfactory results to the worker and which are easily controlled, guided and stimulated by the helpers. Few conditions exist, under which man cannot do something that is at least productive and thereby fundamentally satisfying. A hospital in the city naturally does not offer all the advantages one might derive from a hospital in the country (hence the hope that there may be a convalescent home and country annex added at not too remote a time); yet one will always need resources such as can be used under any roof.

Fig. 1. A corner of the basket room.

As far as possible, the occupations are chosen so as to assure reasonably rapid satisfaction from finished results. The cultivation of interest in the use and purpose of what one makes, as a gift or as an article of distinct general usefulness, is an important factor, as is also the teamwork and everything that takes the patient into spheres of thought bigger than himself.

Another important point is that the interests should dovetail with more lasting interests after the discharge of the patient. Everybody needs a hobby of productive sport, and sometimes it is actually possible to turn one of the occupations to practical use for more or less self-support.

The classes are arranged, starting at nine o'clock, into hour or three-quarter hour periods. Most classes have from eight to twelve patients, although often the afternoon classes for women are much larger.

On the fifth floor we have class rooms equipped for basket-work, brush-making, book-binding, rug-weaving and finer weaving, but during the summer months these classes are all held on the roof garden. On this floor is also a small kitchen for the use of the patients.

Besides the class rooms on the fifth floor, we have a carpenter shop in the basement, where all picture frames and small pieces of furniture, basket-bases and brush-backs are made and painting and staining is done. These classes are for men and are held both morning and afternoon, with longer hours than the classes held on the

Fig. 2. Roof garden, where classes are held during the summer.

fifth floor. It is interesting to mention here the case of a patient who, by means of the jig-saw, unconsciously took a prescribed exercise to which he had strenuously objected.

In deciding upon special work for a patient, we always try to encourage him to make his own selection, and, if possible, to work in some originality. The patients are treated as individuals, never as a class. We feel that a patient is always more interested in something he is making for a friend or a relative than in something he is doing "just to be kept busy." We have been very fortunate in this respect, and last year the patients, particularly the women, bought over two-thirds of their own work. The work that is left is generally disposed of at sales which are held twice a year in the clinic.

I should say that about nine-tenths of our patients work. Of course, a great many of these are too disturbed or depressed to come to class, and these cases have special and individual instruction. It is most important that bed patients should be interested, and, with the aid of

Fig. 3. Doll house made by a patient.

certain appliances, it is not difficult to find work for them which is both instructive and diverting.

Diversions and recreations are most important and are employed in connection with the occupation department.

A large party is planned for all the patients at least once a month in the large recreation hall on the fifth floor or on the roof garden. Small parties are given each week in the wards. Folk dancing is taught once a week

Fig. 4. Rug loom used by classes in weaving.

for the women, and a dancing class has just been started for the men. In summer outdoor games and drills are given. Plays, musical entertainments, and moving pictures are arranged for the evening during the winter.

A course in occupation work is given to the nurses, the pupil nurses having two weeks in the department and the probationers three weeks. They work in classes with the patients in addition to their own regular class. A special nurse may take up any craft with her patient if she cares to do so.

* * * *

SATISFACTORY SETTEES FOR CONVALESCENT USE

Products of Patients' Work-Shop Meet Requirement and Overcome Difficulty of High-Priced Material

By MARY E. RUHL, Supervisor of Occupation, The Burke Foundation for Convalescents, White Plains, N. Y.

As our convalescent work grew and we insisted upon more outdoor hours, it seemed impossible to provide enough settees about the extensive grounds. The park type of iron-framed bench, while satisfactory, is both

Fig. 1. Settees longer than the standard size (five feet to accommodate three persons) are made of heavier lumber and with three legs

expensive and difficult to obtain, and the use of concrete was found to be but limited and decorative. Seats with comfortable backs, strong enough to be left out in all kinds of weather and light enough to be moved about to permit choice of sun, shade, wind, group-companionship, etc., were found to be the type which would best suit our needs. Seats distributed at distances, also, we felt would induce patients to walk to them and would thus take them comfortably away from various depressing atmospheres.

Settees made of cypress boards, in varied designs, have proved very satisfactory. The pictures indicate the construction clearly. Lumber 14-inch width makes up well, although the seat may be narrower. Getting comfort into them depends on the following details: The seat-board should be low to the ground, pitched backward and set forward beyond the edges of the end pieces to give added depth; the back board must slope well up and back; and the end-pieces must be cut to give the necessary semireclining posture. This last precaution is of fundamental importance.

A length of five feet, accommodating three persons, is a serviceable one. Longer seats of heavier lumber may be made, however, with three legs. Screws or nails are found equally satisfactory. Hard-finish paint makes the seats fit for year-round use out of doors.

We have found the better designs, finished in the natural

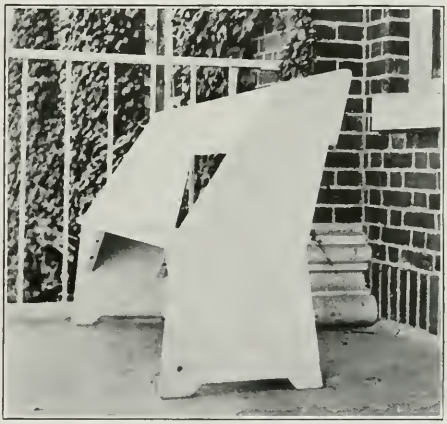

Fig. 2. Type of satisfactory settee for convalescents constructed in the patients' workshop at The Burke Foundation for Convalescents, White Plains, N. Y.

wood, attractive enough to be placed indoors, in our reception and sitting rooms, etc., and a sale of them is developing in this vicinity for garden, lawn, and porch purposes. Cost, with lumber at normal price, is from $2.50 to $5 per bench, including handicapped patient labor at 20 cents per hour.

Tax-Free Alcohol for Hospitals

There has been much confusion on the subject of the cost of alcohol for hospital use. Many institutions are paying $7 a gallon and more for this essential hospital supply. It should be generally known that government regulations permit a hospital which is an incorporated or chartered institution, endowed and conducted not for individual profit, to purchase alcohol for scientific purposes in barrel and half-barrel quantities. A new ruling eliminates a former additional requirement that, in order to be entitled to this privilege, the hospital must maintain a training school for nurses.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.
Director of the Boston Dispensary.
Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

CLINICS FOR VENEREAL DISEASE*

II.—Organization and Management—Practical Problems Involved Illustrated by Concrete Example—Methods of Administration

BY MICHAEL M. DAVIS, JR., Director of the Boston Dispensary.

The practical problems of running clinics for treating syphilis and gonorrhea are probably best illustrated by describing a concrete example. At the Boston Dispensary, the diagnosis and treatment of syphilis and gonorrhea has been divided among three clinical departments and the laboratory.

Syphilis for both men and women has been treated in one department, which also cares for diseases of the skin. Gonorrhea for men has been cared for in the genito-urinary department, and gonorrhea among women in the gynecological department. In many of the dispensaries and out-patient departments, gonorrhea for both men and women is treated in a single department, and in the smaller institutions both syphilis and gonorrhea are cared for frequently in a single clinic. At the Boston Dispensary there existed a problem not only of maintaining and increasing the efficiency of each individual clinic, but also of coordinating their service. This was a somewhat more complicated problem than in a small institution with few clinics treating venereal disease or only a single clinic. But even in a small institution the relations between the clinic and the laboratory, and the clinic and the department of health require attention and organized coordination.

The first step in the Boston Dispensary was to adopt the principle established some years ago, that all syphilis should be the responsibility of a single department of the dispensary. This does not interfere with the special attention, for example, to those difficult feeding cases of infants which are frequently found in conjunction with congenital syphilis. The pediatric department has special charge of those, but the department of syphilis has the cases on record and will see the patients with the other members of the family who are usually involved in the disease, at periodical intervals.

The organization at the Boston Dispensary includes the following:

1. A clinic for syphilis (also dermatology), treating men, women and children; maintained Monday, Thursday, and Saturday mornings, and Monday, Wednesday, and Friday evenings.
2. A clinic for gonorrhea among men (also other genito-urinary diseases); maintained every week-day morning and Monday, Wednesday, and Friday evenings.
3. A clinic for gonorrhea in women and girls, maintained as part of a general gynecological clinic every week-day morning; gonorrhea cases are especially referred for treatment on two mornings weekly; an evening clinic (Mondays and Fridays) was opened in October.

Admitting hours: Mornings, 8:45 to 10:30; evenings, 6:30 to 8:00. Fees charged: Mornings, 25 cents for the first visit, 10 cents for succeeding visits. Fees are remitted whenever necessary. The evening clinics are pay clinics, designed to be self-supporting (and with salaried medical staff). Fees in evenings: $1 for the first visit, 50 cents thereafter.

Extra fees for medicines, injections, certain laboratory tests: $1.50 in evening clinic, $1 in morning clinic.

Salvarsan (or diarsenol) injection: $1, plus actual cost of amount of drug used. Arsphenamine injection, $1 (arsphenamine supplied free for certain types of cases by the State Department of Health).

The number of cases treated in these clinics is approximately as follows:

Kind of Clinics—	Visits per year
Clinics treating dermatology and syphilis (mornings)	7,000
Clinics treating dermatology and syphilis (evenings)	4,000
Genito-urinary clinics for men (mornings)	11,000
Genito-urinary clinics for men (evenings)	15,000
Gynecological clinic (gonorrhea cases—mornings)	3,000
Total	40,000

1. Finances

The average cost per visit in the morning clinics, where the medical staff is unsalaried, is approximately 50 cents, not including, of course, the arsphenamine or its equivalent, but including all other medicines and supplies as well as salaries of the employed persons and the general overhead charges. Of course, in the evening clinics, where the staff is salaried, the cost is approximately double. The income from the fees paid by patients pays approximately half the expense of the morning clinic and the entire expense of the evening service. In the evening service, in fact, there is a surplus, not allowing for overhead and depreciation, and, even with these included, there is probably some surplus from the genito-urinary evening service to be credited.

2. Coordination of Clinics and of Public Health Policies

For the purpose of coordinating procedures in the various clinics treating venereal disease, and also of bringing in the public health relationship in a suitable way, there is a committee on venereal diseases at the Boston Dispensary. This includes the chief of the clinic treating syphilis, chief of the genito-urinary clinic, the chief of the clinic treating gonorrhea among women, the pathologist in charge of the clinical laboratory, the director of the dispensary, and the director of the division of communicable diseases of the Massachusetts State Department of Health.

The functions of this committee are to outline policies which will interrelate the work of the clinics, as, for instance, in those matters in which the clinics have a common interest—in reporting disease, for example, and relating therewith to that of the public authorities. There are other matters, also to be considered, such as the relation of the clinics to the laboratory, and the procedures in getting the laboratory tests in relationship with cases which have both syphilis and gonorrhea, or in different members of the same family who are under treatment in more than one of the three venereal clinics. The working of this committee has been an encouraging indication that, even in an organization large enough to require considerable specialization in the treatment of syphilis and gonorrhea, there can be necessary unification of policies and work. The important matter of coordinating

*The next article in this series will cover the subjects of social service and follow-up.

the clinics treating venereal disease with other clinics in the same institution is also assisted by this committee through the membership of the executive officer of the dispensary.

3. Purpose and Scope of Venereal Clinics

The work of these clinics has three aspects: (A) clinical; (B) public health; (C) social.

A. The aim of the clinical work is to provide accurate diagnosis and efficient treatment carried through to completion.

B. The aim of the public health work is to deal with the diseases as contagious diseases, with the aim of preventing the spread of infection through personal, family, or occupational contacts or through vice, and also to protect the community against those who, if insufficiently treated, are likely to become public charges, due to physical breakdown in late stages of syphilis and gonorrhea.

C. The aim of the social work is to prevent the breakup of families, due to the existence of venereal disease, and to aid when necessary in maintaining employment and self-support.

4. Methods of Clinic Administration

In so far as necessary, the patient receives a physical examination. This is often of particular importance in cases of syphilis. In taking the patient's "history," the extent to which items other than the data concerning the immediate infection are recorded is left to the individual judgment of the physician. In the syphilis clinic, however, the taking of a fairly full general history is encouraged. In general, the histories taken include three kinds of items, which correspond to the three aims of the clinic.

A. Clinical items of present and previous infection, personal and family history.

B. Public health items. Discretion must be used as to the amount of this information which can be secured in various individual cases. The male social worker in the genito-urinary department takes most or all of this part of the history. It will be noticed that the record form is so devised as to be on a separate list, which is filed away from the clinic history card, and that, by tearing off the stub which contains the patient's name, information could be tabulated for statistical purposes without possibility of identification.

C. Social service items are taken on such cases as are to be referred to the social service department. These come on a separate record card which is kept in the social service department file.

D. The admission of patients to the venereal clinics is part of a general admission system of the whole dispensary and is carried out in the main hall where the admitting desks for new patients (under the charge of the social service department), the cashier's desk and the record room are located. All fees, with a few exceptions, are collected at the cashier's desk in the admitting hall. Certain fees, such as those for injections and fees paid in installments, are collected in the clinics themselves.

In the actual administration of the clinics, the patients, whether old or new, come from the admission hall to the waiting room of the clinic with their admission cards and a slip which is a receipt for the admission fee they have paid and which contains the number given them in the order of their arrival. They may thus be called in this order. The clerk sees that the patients are called into the clinic so that the doctors are not kept waiting. The medical records are kept on cards. These are sent from the central record room and are placed in order by the clerk so that the doctor gets the record and the patient together. In the genito-urinary clinic for men, which has run as high as 125 cases at a clinic and often equals 100, the physician in charge sees all cases for determining diagnosis or outlining treatment at the revisit, the other members of the staff being in the treatment room. It has often been found convenient to see the new patients at the close of the clinic, when ample time can be given to go into the cases as carefully as is necessary without holding up large numbers of men who are anxious to get back to work and who need only a brief period with the physician in charge to determine what change, if any, should be made in the treatment which has been already outlined. It must be borne in mind that in a clinic of this type the average patient is found to pay from about fifteen to twenty visits, so that the proportion of new cases in the total clinic is quite small. The staff of the syphilis clinic includes a neurologist, one of the heads of the neurological department of the dispensary, who is in attendance once a week in the syphilis clinic. All syphilis of the central nervous system passes through his hands and the administration of lumbar puncture is also under his charge. The laboratory used by these clinics is the clinical laboratory of the dispensary, which has a clinical pathologist and two technicians. About half the time of the laboratory is required by the venereal clinics, and the remainder, by the other clinics of the dispensary. The Wassermann test and the test for the gonococcus, are done in the laboratory, as well as usual bacteriological examinations. The genito-urinary department is also provided with its own microscope, so that smears can be examined in the clinic immediately.

The administrative staff actually engaged in the clinics include:

Syphilis clinics: A head social worker, who is also in charge of all the social service in the venereal disease division, an assistant social worker, a nurse, and a clerk, who is employed also in other departments and whose services are used only part of the time.

Genito-urinary clinics: A man social worker and a man clerk.

Gonorrhea clinics for women: One or two nurses in attendance at examinations, a social worker, and a clerk, whose services are required only part time.

5. Relationship to Health Department

Under the state law of Massachusetts passed in 1918, cases of syphilis and gonorrhea in the infectious stages must be reported by number to the State Department of Health. If they fail to keep up treatment satisfactorily in the clinic or in the hands of a private physician, they are further reported by name, and these names are sent to the local health department (in Boston, for example), which then has the responsibility of getting them back under treatment. The clinic falls in with this plan by regarding a certain group of cases as so-called health department cases, i. e., those taken up with the Boston Health Department, with the aim of insuring or enforcing treatment, or of preventing the spread of infection. Cases falling within the following classes should become health department cases whenever, in the opinion of the chief of the clinic or of the director of the dispensary, the circumstances justify. All cases in the following classes shall be brought to the attention of the chief of the clinic by his assistants or by the nurse or social worker. Cases which are taken up with the health department shall all pass through one person, in order to provide a center of unifying information and procedure. The actual conference with the Boston Health Department may be either by this person or by the director or the chief of the clinic.

The types to be considered as possible health department cases include: (a) patients who are exposing members of their families and who refuse or neglect to cooperate as requested; (b) patients who, by reason of oc-

cupation, expose others to infection and who refuse or neglect to cooperate as requested; (c) prostitutes; (d) infectious patients who have failed to report for treatment within six weeks and who are then reported by name as required by the state department of health.

It is the policy of the service to bring to examination—and, when necessary, to treatment—all the members of the family of a patient with syphilis and gonorrhea.

Cooperation in the suppression of vicious resorts, etc., is also part of the service. Information concerning such may be furnished the proper authorities, with the consent of the chief of the clinic or the director. The person above specified keeps memoranda of all instances.

6. Adaptation to the Small Clinic

In the small clinic the treatment of syphilis and gonorrhea, for both sexes, will generally be combined under one chief. A committee for the coordination of different elements working in the clinic with one another, and with the public health authorities, should be formed and may well include the chief of the clinic, the superintendent of the institution, the head of the laboratory, and the health officer of the city or town, or his representative.

The staff of such a clinic would include the chief and probably one or two assistants. The executive staff may be only one person, who, in that case, should have the training of a social worker. It is highly desirable, however, to have the services of at least a pupil nurse for attendance upon women patients or for other duties, and to make some provision for clerical service.

The equipment of such a clinic is described in the first article of this series. Its management should follow the same principle as that described for the large clinic. The record forms used and the follow-up system can be substantially the same.

Care should be taken, particularly in a small community, not to send out letters which might be identified by those living at the residence of the patient as coming from a dispensary. At large institutions in great cities this difficulty is usually overcome either by sending out these letters without any imprint on the envelope or by using the address of an individual (the social worker, for instance) on the outside of the envelope. It is very desirable to have such a return address printed, in order to know when incorrect addresses have been given.

Those who have not been accustomed to the careful organization and management of clinics, but have rather been accustomed to allowing them to run themselves, may be somewhat troubled by the demands which appear to be made for the supposed sake of efficiency. The fact is that efficiency can not be secured without definite organization and careful planning, adequate staff, and regular supervision; and this is true in a hospital, a clinic, a factory, a government, a household, or anything else. The maintenance of efficient clinics for treating syphilis and gonorrhea is now demanded by a national program, to which the hospitals and departments of health of the country must respond. They need not be deterred by lack of money, for, under present conditions, money for such a purpose can be secured from either public or private sources if there is courage and wisdom in asking for it.

Economy

An employer of labor who fails to discover by physical examination what tasks his workmen are best physically fitted to perform and who does not protect the health of his workers is needlessly wasting man power, though his workmen may not be idle one minute of the working day.

HOME SERVICE AND REHABILITATION

The Bulletin of the Chicago Chapter of the Red Cross Summarizes the Duties We Owe Our Returning Men—Gives List of Books We Can Read to Best Advantage

In the Chicago Chapter Bulletin of the American Red Cross for November 29 is found the following very helpful summary of the duties of the Home Service in relation to the rehabilitation of our disabled soldiers and sailors.

"1. To bring solidly behind the disabled men at all stages of the reconstruction process the moral support of his family, remembering that he is at this time just as much in the service of his country as when at the front.

"2. To assist the men, through the competent legal service at the command of the Home Service Section, to secure the benefits of the War Risk Insurance Law and especially the provisions for compensation and insurance.

"3. To urge upon disabled men, as opportunity presents, the wisdom and necessity of taking full advantage of the Government's plans for their care and training.

"4. To encourage them in the early and critical stages of their vocational training and of their return to employment, when the struggle to overcome the mental and physical handicap is most acute.

"5. To help bring about a reasonable and sympathetic attitude on the part of employers, which shall give every handicapped man a real chance, while avoiding the danger of tempting him to forego the necessary training for the specious attraction of an immediate, temporary, or perhaps unsuitable job.

"6. To mold public opinion so that it will discountenance trivial and demoralizing entertainment and hero-worship, and maintain a constructive attitude which, while demanding a square deal for the returned soldier, shall expect from him every reasonable effort to ensure his self-support.

"7. To supply information, encouragement, legal, medical, and business advice, and other service, when acceptable and necessary, in like manner as is now being done for the families of men at the front."

The same issue gives an excellent but of course merely suggestive bibliography on rehabilitation which it recommends to all those who wish to obtain a wider acquaintance with the subject.

1. Todd, John L.: "The French System for Return to Civilian Life of Crippled and Discharged Soldiers," Publications of the Red Cross Institute for Crippled and Disabled Men, Series 1, No. 5.

2. McMurtrie, Douglas C.: "The War Cripple," Columbia University War Papers, Series I, No. 17.

3. Harper, Grace: "Vocational Reeducation for War Cripples in France, "Publications of the Red Cross Institute for Crippled and Disabled Men, Series II, No. 1.

4. Brock, L. G.: "The Reeducation of the Disabled," *Nineteenth Century and After*, London, 1916, LXXX, 822-835.

5. Jarrott, Thomas L.: "The Problem of the Disabled Soldier." *American Journal of Care for Cripples*, 1917, iv, 226-243.

6. Hutt, C. W.: "The Future of the Disabled Soldier," London, 1917.

7. Federal Board for Vocational Education:

Bulletin No. 5 (Reeducation Series No. 1), "Vocational Rehabilitation of Disabled Soldiers and Sailors."

Bulletin No. 6 (Reeducation Series No. 2), "Training of Teachers for Occupational Therapy for the Rehabilitation of Disabled Soldiers and Sailors."

Bulletin No. 15 (Reeducation Series No. 3), "The Evolution of National Systems of Vocational Reeducation for Disabled Soldiers and Sailors."

8. The Red Cross Institute for Crippled and Disabled Men, 311 Fourth Avenue, New York City, has issued several series of publications in this field, some intended for the general reader and others for those interested in special or technical aspects of the problem. Every person who is interested in this subject should write to the Institute and ask to be placed on the mailing list.

9. *American Journal of Care for Cripples*, 2929 Broadway, New York City. From the beginning of the war this quarterly has reprinted a large number of the most significant articles appearing in other domestic and foreign periodicals.

10. *Recalled to Life*. A journal devoted to the care, reeducation, and return to civil life of disabled sailors and soldiers. Edited by Lord Charnwood and published by John Bale, Sons & Danielsson, Ltd., Oxford House, 83 Great Titchfield Street, Oxford Street, London W.

HEALTH AND MODERN INDUSTRY

Conducted by BARROW B. LYONS
Superintendent Delaware Hospital. Wilmington, Del.

RECONSTRUCTION

War Kindles Spirit of Service—Former Selfish Materialism of Industry Will Lessen

Reconstruction! It is a word that thrills all who live and think, for in the mind of each it conjures up the vision and hope that all he has longed for is at last becoming real. The entepreneur visualizes a vast world expansion of industry and trade; the laborer sees dawning a day of power and plentitude for the working classes; the professional man pictures a coming Renaissance of arts and sciences; and the social reformer foresees a new civilization in which men shall live as brothers.

The war has loosed the forces both of disintegration and of construction. The old world falls to pieces to be rebuilt again. In self-protection, men are questioning old habits and customs, breaking away from tradition, seeking new landmarks by which to steer, and trimming their sails to catch the winds of progress that sweep forward to undiscovered lands.

Yet there is a compelling, guiding principle which has impregnated the minds of men in all countries. The war has rekindled the spirit of service to a transfiguring degree. Men find that they can no longer successfully live for themselves alone. Fear and the impulse of self-protection has taught a lesson in cooperative social action which a thousand years of peace could not teach; and the terrific commercial rivalry which will follow the war will mould new human relationships to form the solid foundation for a better civilization than man has yet enjoyed.

In all phases of life new social relations will be manifest, but particularly in industry, where the selfish materialism of the past is fast beginning to crumble. In order to meet the economic competition of European countries, American industries must adjust the human relations in their shops so that the least amount of friction and the greatest cooperation will exist, and so that each human unit will be able to render the best possible service.

Nothing is more important in this respect than the health of the workers. For those who are interested in enabling the worker to function at his greatest capacity, the Department of Health and Modern Industry has been inaugurated in THE MODERN HOSPITAL. Its objects are:

1. To acquaint those engaged in industrial, surgical and medical work with the best work being done by others.

2. To discover to what extent that which is being done is practical.

3. To discover improvements which might be made in this work and to point the way to progress.

4. To formulate a program to secure the more general adoption of surgical and medical attention for employees in industries throughout the country.

Readers of this department are invited to make its work more useful by giving what information they can regarding the best work which is being done in the field of medical supervision and physical examination of employees. Statistical data which will prove the value of this work are needed more than anything else, in order to convince more manufacturers that it is "a paying proposition." The cooperation of everyone interested in the movement of health in industry is needed.

SUCCESSFUL HEALTH SUPERVISION BY A MANUFACTURING COMPANY

How a Pioneer in Industrial Health Work Has Developed an Important Service to Employees — Norton Company Conducts Periodic Examinations

BY J. J. WEBER, Associate Director, Boston Dispensary, Boston.

The Norton Company and the Norton Grinding Company are the largest manufacturers of grinding wheels and grinding machinery in the United States. Their plants are located at Worcester, Mass., have over thirty acres of floor space, and give employment to about forty-five hundred workers. Up to the time the United States entered the world war, these workers, except for the office force, were all men; but since then about three hundred women have been at work in the shops.

To maintain the morale of an organization of this size is no mean task. It requires a leadership and a constant adjustment and readjustment of human relations that call for the highest type of human engineering. These activities, as distinguished from those connected with the actual manufacture of its product, the Norton Companies have termed "employee relations" activities. To be more specific, they have to do, among other things, with the health and safety of the workers, the sanitary conditions under which they work, questions of employment, housing, feeding, technical training, general education, insurance, pensions, and recreation.

The principal departments that carry on this employee relations work are the departments of health and sanitation, safety engineering, and employment. They are under the general supervision of the service committee, made up of the head of the department of health and sanitation and the works managers of the two companies.

The spirit that motivates this work is best told in the words of the preface to the company's pamphlet on employee relations activities recently published:

Fig. 1. Main Hospital of the Norton Company, Worcestor. Three examination and treatment rooms are seen in the rear at the left, and the door at the extreme end leads into the recovery room.

"The management does not regard this work as being in any sense philanthropic. Paternalism is carefully avoided. There is no desire in any way to interfere with the private life of employees. Opportunities are presented for advancement with increase in wages, and environments are created that should influence them to use their incomes wisely. It is the policy of the company to pay for what it buys whenever it has occasion to purchase time, effort and thought of its employees, just as it does when it buys raw material. Likewise, each employee is expected to render efficient service in return for his wage just as a customer is expected to pay for what he receives.

"No work is done which the owner of a small shop would not do himself on a small scale as a matter of duty to his employees. Growth of the shop is almost invariably accompanied by loss of touch between the management and the workman. These departments are simply seeking to reestablish the good feeling and tolerance which has so much diminished under modern management systems. Experience has convinced us that this is an economic measure entirely aside from improvement in morale, because it costs less to conduct these activities through a centralized department than to accomplish the same thing by the effort of men whose whole time should be devoted to production."

A dozen articles might easily be written on the various phases of the industrial service work of the Norton plants, on their educational work, including Americanization classes, their housing project on Indian Hill, their methods of employment, their war gardens and patriotic parades and pageants, and their recreational activities. I shall, however, content myself with an account of the activities of their department of health and sanitation.

A TIME-TESTED PLAN OF SUPERVISION

The main hospital from which the activities of this department radiate is a well-arranged, fully equipped suite of rooms in the basement of the administration building, including not only the main treatment room, but also a room for the general physical examination of employees, with individual dressing rooms leading from it, three examining and treatment rooms, a room for the examination and treatment of eye cases, and a recovery room. As the plants cover several acres, there are, in addition to this main hospital, four subhospitals, where minor cases are treated. When necessary, these cases are examined the following day by the surgeon on his daily visit. If the cases are more serious, the patients are sent to the main hospital if they can walk to it; otherwise, the surgeon is summoned to the subhospital.

Connected with the hospital are four doctors, one of whom is always on duty between the hours of 8 a. m. and 6 p. m., while all are on call between 6 p. m. and 8 p. m. Five nurses, one of whom is a man, are also connected

Fig. 2. A typical scene in one of the examining rooms of the Norton Company.

Fig. 3. The recovery room in the hospital of the Norton Company at Worcestor, Mass.

with this department. Recently, moreover, the company has employed a registered nurse who acts in the capacity of a medical social worker and visits the homes of employees for the purpose of doing any medical or social service work that it may be found necessary to do.

Every new employee and every employee who is transferred from one department to another is given a complete physical examination. Periodic examinations about once in six months are also made of all men having defects of a nature serious enough to require careful watching. This practice has advantages for both the company and its employees. It enables the company to give each man the kind of job for which he is physically fitted. It gives the doctor an opportunity to tell the employee of any defects of which he may not be aware and to enlist his interest in overcoming them when possible. It protects the company from employing men who are undesirable because of serious defects, and it protects the workers by preventing the entrance of contagious diseases into the factory. It makes the employee feel that the company is taking a personal interest in him and that he can feel free to go to the doctor at any time for further advice.

Few men who apply for work are without defects. Minor defects, however, do not prevent their doing most of the work to be done in the plant. Some departments, where, for example, there is intense heat, heavy lifting to be done, or more than the average amount of dust, do call for higher restrictions, and only those physically fit are assigned to work in them.

Dr. Clark thus sums up five years of experience with physical examination of employees in a factory of about 2,800 employees:

"1. The average workman does not object to physical examination, and the majority of them are pleased to have such examinations made: (a) on account of the information it gives them; (b) because it throws them in intimate contact with the doctor to whom they are going to apply afterward in case of sickness or accident.

"2. A physical examination cannot be too complete. The most complete form of examination the average man requires takes ten minutes, provided a urinalysis is not done.

"3. Periodic examinations of markedly defective men tend to keep such employees in good condition and prevent an increase in their defects.

"4. As it is impossible to employ men who have no physical defects, a physical examination enables us to place men in departments where they will suffer the least risk and maintain the highest degree of physical efficiency.

"5. A fresh examination each time a man is transferred from one department to another prevents the possibility

of a man's being assigned to work for which he is not physically adapted.

"6. A periodic examination of the entire force once a year is not necessary because: (a) the examination is made each time a man is sent from one department to another; (b) all men having any sickness or accident apply to the hospital and are there examined if there is anything indicating the necessity for such an examination.

"7. The number of rejections, even with a rather highly restricted list of defects, is very small and is no argument against, but rather an argument for, the advisability of physical examinations."

Once the man becomes an employee of the company he receives free surgical service for all accidents. This service is usually rendered within fifteen minutes of the accident, due to the thorough manner in which the foremen have been drilled in the necessity for prompt treatment of injuries. As a result of this prompt treatment the time lost on account of accidents has been reduced to a minimum. Although safety engineering has greatly reduced the number of serious accidents, it can not reduce the slight minor cuts and small injuries where the personal element plays so important a part.

DIAGNOSIS GIVEN, BUT TREATMENT AVOIDED

The health and sanitation department does not attempt to treat sickness where a doctor's continued care is needed. In such cases the employee is sent either to his physician or to a hospital. This department does, however, attempt to make a correct diagnosis and to treat minor sickness which, neglected, might develop into a more serious condition. Examples of these are head colds, sore throat, constipation, asthma, beginning bronchitis, and the like. If an employee needs to receive careful, continued treatment for any ailment, he is usually sent to his own physician or is given a list to choose from, if he has no physician, a situation not infrequently met with. In other words, prolonged treatment of the sick is not considered to be the legitimate function of a shop hospital. Its function is rather prophylactic—prevention by immediate, simple treatment, observation and advice. Any employees who are discovered with incipient tuberculosis are sent to the state sanatorium and upon their return are assigned to suitable employment, usually out of doors. During the employee's absence his family receives a percentage of his wages.

The care of the toilets and wash rooms, the inspection of bubbling fountains and cleaning of cuspidors, and the removal of rubbish and garbage, is the responsibility of the department of health and sanitation. The actual work is done by custodians.

A great deal of health education work is done by the company. Monthly health bulletins are placed in the pay envelopes. These often fall into the hands of members of the family. Not infrequently employees come into the clinic for examination and advice as the result of reading one of the pamphlets. Illustrated lectures on health and safety topics are frequently delivered in the auditorium.

The company maintains a cafeteria which is mainly patronized by its office employees, though any employee is at liberty to use it. The workmen, however, prefer to go to one of six dining rooms scattered about the plant. Into these they can go with their overalls on and, if they have brought their own lunch, supplement it with a bowl of hot soup, a cup of coffee or tea, or a piece of pie. After they have finished eating, the men sit about chatting, smoking, or playing cards until they are called back to work at one o'clock. The food for the cafeteria and the various dining rooms is all cooked in one central kitchen and transported in thermos cans, thereby being kept hot until served.

Commenting on the work of the health and sanitation department of the Norton Company, Dr. John F. Curran, one of the company's industrial surgeons, said:

"Our methods open up vast possibilities in the field of preventive medicine, where everything depends on the individual. Much can be done by education through the schools, by articles in papers and magazines, and by lectures and motion pictures, but the most effective means is through direct contact with the individual. After our examination he knows that he is either sound or defective, and, if the latter, he receives the necessary instruction to remedy his defects. He knows the type of work for which he is best fitted, and, finally, he knows what a thorough examination is.

"If every workman possessed this knowledge, we would have a campaign of preventive medicine which would affect the whole country."

* * * *

HEALTH WELFARE WITHOUT STINT

A Huge Work Shown in the Latest Annual Report of the Medical Department of the Colorado Fuel and Iron Company

The *Industrial Bulletin* of the Colorado Fuel & Iron Company, dated September 25, 1918, contains a report of the medical department of the company for the preceding year. The report is interestingly edited and well illustrated. It makes excellent propaganda material for anyone interested in convincing the management of a plant that it pays to protect the health of the workers.

The Colorado Fuel & Iron Company has reached a very high point in the development of its medical department. The extent of the work can be judged from the following report of the number of cases treated from July 1, 1917, to July 1, 1918:

In the mining camps, 39,722, including medical and surgical, eye and ear, and dental; in the Pueblo Steel Works Dispensaries, 81,899, including surgical, medical, and physical examinations; Pueblo school children, 2,192; in the Minnequa Hospital, 8,244, including medical, major and minor surgical, eye and ear and hospital dispensary; in all a total of 182,057.

The Minnequa Hospital staff consists of three surgeons, three internists, two neurologists, two dentists, an oculist an aurist, a pathologist, an obstetrician, a roentgenologist, an anesthetist, and a chemist. Seven men comprise the Steel Works Dispensary staff and twenty-eight mine surgeons and three dentists that of the mining camps. In addition, there is a large corps of nurses, including three visiting nurses.

In commenting upon the medical work, Dr. R. W. Corwin, chief surgeon, says that Wassermann examinations are made as a routine in all cases admitted to the hospital. It is quite as true of the industrial army as of the military army, he says, that the wounds of those suffering from venereal diseases heal much more slowly than the wounds of those not so infected. He says further:

"Increasing attention is being given to care of the teeth. Examinations at the hospital and at the dispensary have proved that a large percentage of employees are known to have decayed teeth and pyorrhea and suffer from toothache and blood poisoning. A person suffering with pain and poisoned until half sick is unable to do his work satisfactorily, loses time, and is apt to meet with accidents due to lack of mental alertness.

"The war has proved that the foot is an essential part of man. If he has aching, infected, and deformed feet, clad in shoes that increase his trouble he is not one hundred per cent efficient, and oftenest meets with accident.

"It is not too much to say that every working man, like every fighting man, needs to be examined from head to foot and kept fit."

LETTERS TO THE EDITOR

How the Great News Was Received in Paris

[We know that our readers will be glad to learn, from the following letter of Miss Margaret J. Robinson, how the great news of the German surrender was received in Paris. As previously explained, the services of our field editor, Miss Robinson, have been lent to the American Red Cross in Paris for certain publicity work requiring expert knowledge of hospitals and hospital work.—ED.]

Have had a wonderful week since the news of November 11. I feel very lucky to be here; tramped the boulevards with the joy-mad crowds until my feet gave out.

Monday morning I marched up the Rue de Rivoli with the Red Cross Americans from headquarters to the Place de la Concorde, where the crowd took the mourning off the statue of Strassbourg that had been there since 1870, and later stood on a big captured Boche gun and led the Americans singing the Star-Spangled Banner. All the years I put in my music were worth while, just for that.

The Americans owned Paris during the celebration. Just to wear the uniform was enough to get the crowd's enthusiasm. You would see groups of men and women form circles and dance around American soldiers. The boys from the hospitals, many of them bandaged and on crutches, were enthusiastically embraced by the French women, much to their embarrassment, and everywhere it was "Vive l'Amérique!" "Merci, merci, mademoiselle!" "Viva la Croix Rouge Américaine!"

Camions, camionettes, old dilapidated taxicabs, rented for almost anything the cabbies asked for, rushed about decked with flags and filled with shouting French, British, and Americans. All that was needed to start a procession was a leader and a big French and American flag. The processions and their personnel were certainly cosmopolitan, and one saw mostly all the allied nations arm in arm, and everyone was singing and cheering the others.

The Americans were not satisfied with the amount of noise made, as there were no fireworks or noise producers for the mob, so the American drivers of the United States cars and camions used the back-fire of their engines, and I tell you they made some noise.

The siren from the Arc de Triomphe and Notre Dame that had sounded the alerte for the bomb raids announced the signing of the armistice, and the big anti-aircraft guns boomed out joyfully all day Monday, minus their shrapnel barrage.

Later one of the nurses I know and myself, escorted by an American colonel, went to the opera. Mme. Marthe Chénal, the prima donna, draped in the tri-color, and with a great Alsatian bow on her head, sang the Marseillaise, a Belgian staff officer in uniform, with his Legion d'Honneur and Croix de Guerre on his coat, sang the Brabançonne, and the leading tenor sang the Star-Spangled Banner. You can imagine the enthusiasm of the audience! It was worth the 19 francs for the seat I occupied. After the opera (Monna Vanna) was over, Mme. Chénal sang the Marseillaise in her tricolor from the lighted balcony to the mob outside, and the crowd that packed the Place de l'Opéra solid joined the chorus. Paris was transformed; you can't imagine what it meant to have the windows opened and the boulevards and streets lighted!

Sunday will be another great day. The Allies will march under the Arc de Triomphe.

I suppose it will be a few months yet before I get back, even if the war is almost over. There are big problems yet to be worked out, and I don't want to lose out on anything worth while.

Yesterday the city of Paris gave a reception at the Hotel de Ville to the American Red Cross. The halls of the building were most gorgeous, the mural decoration wonderful. The place was ablaze with thousands of electric lights in the crystal chandeliers, and the floral decoration artistic as only the French can make it. Papa Joffre was there, and I stood quite close to him. Ices were served (they are rare here), and all the champagne that the crowd could drink.

Give my best to everyone, and please write often. I haven't as yet had a scratch of a pen from anyone. You people over there in God's country don't know what it means not to hear from home and how long it takes for letters to get to us.

MARGARET JANE ROBINSON,
Pension Galilée, Paris.

* * * *

A Chinese Hospital Which Serves the Poor

To the Editor of THE MODERN HOSPITAL:

This is, of course, a mission hospital. It has been established in Tehchow only three years, but the origin of the work in this locality dates back thirty-eight years, at which time it was located at P'ang Chuang, a small village fourteen miles distant. From the beginning, the work has been among the farming community. We have never had any number of wealthy or even fairly prosperous patients; and, though this has obvious advantages, still it has often made the question of support a very difficult one. But, in more recent times, since the advent of the China Medical Board, our path has been smoother, for it has cooperated with the parent board, the American Board of Commissioners for Foreign Missions, in maintaining our hospital. The line of their assistance has been notable in providing more workers. Two additional physicians are now on the field, and we are only awaiting suitable candidates to avail ourselves of their promise of an additional nurse and a business manager. All told, we have a staff of four foreign physicians, one foreign-trained nurse, who is principal of the training school for nurses, two Chinese men physicians, one Chinese woman physician, and fourteen nurses in training, both male and female, who are, of course, also natives.

Since I know the work of the women's hospital most intimately, I will tell you some of the aspects of the work and patients least likely to be familiar to the readers of your magazine. I was most surprised, on first coming here, to see what a different range of diseases we have from that commonly seen at home. In my intern days, the most frequent diagnosis was "tonsils and adenoids," and a very close second was "acute appendicitis." Here I have never seen a case of the latter, and, though the former is sometimes seen, it is almost impossible to get permission to operate. Our most frequent operation is for "T. B." in some of its many forms, glandular and bone being by far the most common. Then there are rectal diseases of every sort and description. Contrary to ex-

pectations, gynecological practice is very light, though venereal diseases, especially syphilis, is very common. Diseases of the breast are common, as might be expected in a land where it is not uncommon to see a child nursed ten times in an hour, not to mention the fact that nursing is kept up until the child is four or five years old, and sometimes as late as six and eight—yes, and even ten years old! We do not have the horrible obstetrical cases encountered in some parts of China. Most of our patients are Christians, and the cases are normal. By coming to the hospital, they avoid tetanus, the disease that takes so many babes on the third day. The uninitiated think it extraordinary that never yet has a baby born in the hospital died of tetanus. Of course, they do not know that their practice of covering mother and child with nice, soft loam has any connection with the mysterious deaths on the third day, and if we tell them, they do not believe it. This is not so much a superstition on their part as a makeshift arising out of their poverty. They have no cloth to use as wrappings or to absorb discharges, so they use the best they have with aforesaid fatal result.

The two obstetrical cases that I have received lately from the hands of the midwife may be of interest to you. One was a case of placenta praevia at about the seventh month. When they brought the woman to the hospital she had been bleeding for two days, and the family, becoming frightened, had called in two midwives, who had clawed the poor patient all night long. The next morning, when they gave up in despair, the patient came under my observation. I knew from previous experience that it was not possible to do any conservative work in their wake; so I did nothing until the patient was etherized and ready for operation. When I looked into the vagina, I found the child's liver and intestines lying loose. There was a contraction ring, so that it was a very difficult delivery in spite of the small size of the child. At the close of the delivery, the mother was in a bad state of shock, and I prophesied a stormy convalescence, but was greatly surprised to find it absolutely uneventful. Her relatives removed her against advice on the sixth day. The other patient was brought to the hospital by a wealthy banker, who has long been a friend of ours. She had a shoulder presentation; arm had been prolapsed for ten hours before her arrival. There had evidently been no small mount of traction exerted, too. The vagina was simply torn into ribbons by the finger nails of midwives and so badly swollen that it was impossible to recognize the urethra. Version and extraction was done without too great difficulty and produced a dead child, of course. The mother made a fairly good convalescence, but it was a constant fight with the relatives to keep her in the hospital.

One of the largest branches of our service is the eye work. One is tempted to say that every one in China has something the matter with his eyes. They all have trachoma, and the men add cataract to theirs, while the women prefer entropion. Probably a fifth of all our patients have eye disease, and hardly a week goes by that we do not have an entropion operation.

Curious as it may seem, we have no few accident cases. One would think it impossible for an agricultural community without machinery to get as many injuries as these people have. This year our country has been harrowed by bandits, and, on that account, we have had many cases of gunshot wounds and also many severe burns.

(Dr.) Amy A. Metcalf.
Williams and Porter Hospitals, Tehchow, Shantung, China.

DISTRIBUTION OF EXPENSE—A QUESTION OF ACCOUNTING

What Is Included in "Professional Care of Patients"?—Where Training School Salaries Should Be Placed

The following correspondence will undoubtedly be found of interest by readers who have been following the series of articles on "Hospital Accounting" by Mr. Carter and Mr. Porter:

My Dear Mr. Carter:

May I say a word about your last article (October issue) on hospital accounting? Under section II, subsection 8, "professional care of patients," you include "superintendent of nurses, head nurses, nurses." Under section III, subsection 23, "department expenses," you include training school salaries and wages. There is room for some confusion here. What is intended by training school salaries and wages? The superintendent of nurses and her staff of supervising instructors are evidently intended to be included under section II. There would remain then only the salaries and wages of the housekeeping department of the nurses' home. If this is what is intended, would it not be best to say so?

Under "professional care of patients" you have included, as we in our Mount Sinai report have also included, the x-ray service and the pathological department. You have also included the dispensary in this group; in Mount Sinai we handle the dispensary separately as representing a department quite distinct from that of the hospital proper. With regard to the pathological laboratory and x-ray service, I think that both you and Mount Sinai are in error. It is true that some of the items charged under these headings represent "professional care of patients," as, for example, the salaries of the professional and technical staffs of these laboratories; but in well-developed hospitals the pathological laboratory includes among its employees persons whose work is more akin to that of the housekeeping department than that of the medical staff. It is not desirable, I think, to split up the expenses of the pathological laboratory, allocating the purely professional expenses to the division, "professional care of patients," and the incidental expenses to other divisions and headings. I think it is best to show wherever possible, under a single heading, the total cost of conducting the pathological department, split into two main items of "salaries and wages" and "supplies." But, inasmuch as part of the expense of the laboratory is non-professional, would it not be best to handle this item as a "department expense," and not as a special division of the "professional care of patients"? There is a sense in which the whole hospital is devoted to the care of patients, and the work of the ward maid is quite as professional as the work of the cleaner of the floors and windows of the pathological laboratory. The pathological laboratory, the x-ray service, and similar services seem to me to belong in a separate department group, somewhere between the generally recognized "professional care of patients" and the commonly accepted "department expenses."

As for the social service department, which you have also included under the "professional care of patients," this is a distinct department, a sort of adjunct to the medical service proper, and, like the dispensary, I think it should be handled as a separate department.

You may say that this is a splitting of hairs and, of course, this is true, but the whole purpose of cost accounting is the splitting of hairs intelligently and helpfully.

Yours sincerely,
S. S. Goldwater, Mount Sinai Hospital, New York.

My Dear Dr. Goldwater:

In reply to your letter of November 6, which was sent to me through The Modern Hospital, I should like to call your attention to the introduction to the series of accounting articles which are now appearing in this magazine by Mr. Porter and myself, in which the difficulty of devising a system of accounting which would meet the requirements of all hospitals was admitted. Local conditions in different hospitals, regardless of the size of the institution, will always vary.

There are a few very small hospitals that employ a pathologist, while a large hospital, like Mount Sinai, may have a pathological laboratory with a full staff; an organic chemistry laboratory and staff; and, perhaps, a

bacteriological laboratory and staff, separate from the pathological department. In this case items of expense would be charged directly to each of these highly developed departments in order that accurate costs of this kind of "professional care of patients" might be determined.

In smaller hospitals, however, to attempt to apportion the expense accurately and minutely would force them to carry as large a clerical force as the large hospitals, and consequently they might have more clerks than patients.

Briefly, the size of the institution must regulate the number of departments that may be operated economically and fineness of the costs for the more highly developed departments, such as pathological and x-ray.

Section III, Article 23: Training school salaries and wages should include the supervising instructors' of the embryo nurses in the training school, as well as the cost of janitor service, etc.

The superintendent of nurses would ordinarily spend more time in the routine work of the hospital than in the actual education of nurses; so her salary is chargeable under Section II, Article 8.

The actual costs of the nurses' home should all be grouped under a department by that name. As a part of the remuneration which the nurses receive is board and lodging, it is quite as important to know what it costs to house and feed nurses as it is to know what it costs to house and feed patients.

The question of departments is an easy one to solve, as there are but two classes—departments that deal with patients, which must come under the general classification "professional care of patients," and the miscellaneous departments whose costs must be distributed by some equitable method to the departments included under the first departments that do not care for patients directly.

As a matter of fact, the cost of the training school must be borne by the departments under the caption "professional care of patients," just as much as is the food that these patients eat, the drugs administered to them, etc.

The office is a department, the power and steam plant is a department, or possibly two, but the costs of operating these departments must be absorbed by departments that fall under "professional care of patients" and the social service department must bear a just share of the expenses of the institution maintaining it.

You have hit the nail squarely on the head in saying that accounting is a matter of "splitting hairs." And the more intelligently they are split, the better are comparative records which furnish the basis of instituting economies and checking leaks.

I hope this letter will explain the reasons for apportioning expenses according to the article you referred to.

Sincerely yours,

H. K. Carter, New York.

THE DANGER OF FIRE IN THE HOSPITAL

The Trustee's Responsibility for the Safety of Patients—Means of Escape in Case of Fire—Spread of Smoke

Every hospital trustee has a moral and legal responsibility which can not be discharged solely by perfunctory attendance at board meetings. Unless the trustee has personal and intimate knowledge of the conduct of the hospital and the condition of its plant, his counsel at the board meeting is more apt to be detrimental to the hospital than helpful.

If any trustee feels that he has not done his full duty and is moved really to interest himself in the hospital, he might begin by going to the hospital and putting himself mentally in the situation of being in charge of getting the patients out of the building quickly because of an outbreak of fire. He must consider that most hospital patients cannot help themselves and that many of them, especially surgical cases, would have to be taken out on mattresses or stretchers or be grievously injured, perhaps killed.

From his own experience the trustee will know how rapidly fire spreads, so that the need for quick work will be plain, and this requires that the minimum number of nurses and orderlies available at any time be taken into consideration.

It cannot be assumed that a smoke-filled stairway or a steep iron fire escape ladder furnish satisfactory means of exit.

The possibilities for the spread of smoke must be taken into account, for smoke often kills more persons in a burning building than fire does.

The danger of fire should be looked into. The electric wiring may be old and its insulation decayed and useless. Cheap insulation does not remain effective very long. The kitchen, where fires are very apt to originate, may be so situated that a fire starting there would be communicated quickly to the rest of the building. The boiler room, especially if it contains a high-pressure boiler, may be placed where it is a source of danger. Cellar rooms may be cluttered up with inflammable material. Paint stores may be carelessly kept. There may be other hazards.

If the trustee's investigations do not convince him that the patients can all be removed safely in the event of a fire, he should immediately head a movement to make the building safe. It is a moral obligation.

Lack of funds should not cause remedial measures to be put off. It is better to face a money-raising problem than to appear before a grand jury.

BOOKS RECEIVED FOR REVIEW

The Composition of Certain Patent and Proprietary Medicines. More than 2,500 Remedies; over 3,100 Analyses. By John Phillips Street, Chemist in Charge of Analytical Laboratory, Connecticut Agricultural Experiment Station, New Haven, Conn. Cloth, pp. 274, $1.25. American Medical Association, 535 North Dearborn Street, Chicago.

From "Poilu" to "Yank." By William Yorke Stevenson, Section No. 1, American Ambulance, 1917. Illustrated. Board, pp. 205, $1.50. Houghton Mifflin Company, 14 Park St., Boston, Mass.

Text-Book of Home Nursing. By Eveleen Harrison. Second Edition. Cloth, pp. 187, $1.10. The Macmillan Company, New York, 1918.

Where Your Heart Is. By Beatrice Harraden. Cloth, pp. 367. Dodd, Mead and Company, 1918.

Dietetics for Nurses. By Fairfax T. Proudfit, Former Instructor in Dietetics in The Lucy Brinkley and Baptist Memorial Hospital, Memphis, Tenn. Cloth, pp. 444, $2.25. The Macmillan Company, New York, 1918.

The Doctor in War. By Woods Hutchinson, M.D. Illustrated. Cloth, pp. 481, $2.50. Houghton Mifflin Company, Boston, 1918.

Clinical Medicine for Nurses. By Paul H. Ringer, M.D., Member of Staff of the Asheville Mission Hospital, Asheville, N. C. Illustrated. Cloth, pp. 269, $2.00. F. A. Davis Company, Philadelphia, 1918.

The Newer Knowledge of Nutrition. By E. V. McCullum. Cloth, pp. 199, $1.50. The Macmillan Company, New York, 1918.

Everyday Foods in War-Time. By Mary Swartz Rose. Cloth, pp. 117, 80 cents. The Macmillan Company, New York, 1918.

Food and The War. By United States Food Administration with the cooperation of the Department of Agriculture and the Bureau of Education. Cloth, pp. 374, 80 cents. The Riverside Press, Cambridge, 1918.

Dr. W. W. Keen, of Philadelphia, says that in the Civil War shells from eggs used in the hospitals were saved and sold. In one hospital of 3,000 beds the revenue was $3,000.00 a year. The shells are pure calcium carbonate and were used in the manufacture of face powder. Might not this hint be useful in large civil hospitals?—E. R. Scovil in the Canadian Nurse.

QUERIES AND ANSWERS

Interfering Boards and Committees

To the Editor of THE MODERN HOSPITAL:

We are troubled with men's and women's visiting committees making rounds throughout the institution at least once a week, who report their findings to the board of directors at their monthly meetings. They are at times very meddlesome and try to interfere with the management of the institution. I have never paid much attention to them as yet.

But now the president of our organization has a plan by which he intends to get the women still more interested in the hospital, by forming different committees who will "take hold" of the entire inner working of the institution (laundry, kitchen, linen rooms, etc.). I called his attention to the seriousness of his proposed undertaking, saying that I would not allow them to interfere with my management of the hospital.

I would appreciate it very much if you would let me have your candid opinion in this very important matter.

SUPERINTENDENT NEW YORK HOSPITAL.

The method of management mentioned in your letter has been so productive of friction that it has been absolutely cast aside by all hospitals which have progressed and have come to meet the present standards of efficiency. Hospital boards which have a proper conception of standard present-day management understand that their function is not to interfere in the actual daily management of the hospital, but to advise and support the superintendent of the institution. No hospital can secure results unless an efficient superintendent is employed and this superintendent left to the management of the hospital without interference.

This important subject is discussed more fully in an editorial in this issue.

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Charging for Patients' Days in Institutions

To the Editor of THE MODERN HOSPITAL:

A holds that, if a sanatorium or hospital patient be allowed a few days, or even a week, away from the institution, as his bed is kept for him and the overhead expense continues, the absent days should be counted in the hospital days the same as a hotel or boarding house would charge for an absent guest; also, that if a bed is held for a patient a few days previous to admission because the patient arrived a few days late, these absent days should also be counted in the hospital days. B admits that charging patients board for absent days is legitimate as a means of discipline or economy, but cites known instances in which patients absent on visit actually were receiving care from other institutions or private nurses, and holds that hospital days should be a strict record of days' care actually conferred on patients.

Please state which method of counting hospital days should be followed and why.

SUPERINTENDENT EASTERN SANATORIUM.

The points raised cover two separate and distinct questions—first, as to how the number of patients' days care is computed by the institution in charging for these days' care; second, as to charging for rooms that are held.

In answer to the first question, it is submitted that only actual days that a patient is cared for in the institution should be counted. In the case of A, the procedure would be that, when the patient leaves the institution, he would be discharged and upon his return he would be readmitted.

As regards charging for rooms that are held, this depends absolutely upon whether or not the institution loses revenue thereby. To illustrate, if a reservation is made for the first of the month and the patient does not come in until the third and, by reason of holding this room, another patient is kept out of the bed, resulting in loss of revenue, most certainly the patient for whom the reservation is held should pay for the service. If, on the other hand, this room was not needed, it should not be charged.

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Duties and Responsibilities of Superintendent of Nurses and Business Manager

To the Editor of THE MODERN HOSPITAL:

I should appreciate it very much if you could give me a pretty general outline and definition of the duties of a superintendent of nurses in a hospital which is, in fact, a training school, and also of the duties of the business manager. The point which has arisen here is that the superintendent of nurses should be the chief executive officer in the institution and that the business manager should be subordinate to her. My understanding is that, in most institutions, the duty of the superintendent is primarily to have charge and supervision of the training school, acting in the capacity of head of the faculty, to have supervision of the nurses in the hospital through the medium of the assistant superintendent and her subordinates, and to have direct charge of the orders of the attending physicians. I have been under the impression that the duties of the business manager consist in general supervision and maintenance of the hospital buildings and equipment, purchasing and dispensing of all supplies, general supervision of the household, keeping of books, collecting of accounts, and transaction of all other business matters.

A MEMBER OF A BOARD.

One of the principal reasons why hospitals in general have been considered lax in their business methods is their poor management, which is usually a result of the fact that many of them do not have a chief executive officer who is "over all" departments.

There must be one head in order to get proper results. This chief executive officer should be designated as "superintendent." This name should be standardized. There are good reasons why "business manager" and other names should not be used. Whether this position is occupied by a doctor, nurse, or layman makes no difference. The superintendent of nurses, medical staff, and heads of all departments connected with the institution must be under the superintendent to get proper results. The board of directors should act as councilor to the superintendent. Their work, which is in direct contact with the management, should be done through him rather than over his head.

This is the only way for a hospital to be managed in order to give proper service to the patients, to safeguard the funds of the institution, and to secure the confidence of the community.

Be Sure All New Machinery Is Understood

This doubtless is the day of machinery, and hospitals are behind the times to say the least if they do not take advantage of all the labor-saving machines that they can use with benefit. However, once you have determined that a particular machine will save the hospital money, be very sure the employee is fully instructed and heartily in sympathy with its use, or instead of being an asset, it will lie idle and not be used at all, or it will be found upon the junk heap in short order.

HINTS TO HOSPITAL SUPERINTENDENTS

Building New Hospitals

It cannot be too firmly borne in mind that the Great War is epochal and that we all shall have to clear our minds of many fixed ideas based upon experiences of the pre-war period. Any consideration of hospital building projects must be based upon the new conditions and not by comparison with buildings erected before the war.

The expense of building hospitals is bound to be greater than in the past. Owing to the suppression by the government of all private building during the war, a great amount of construction will be necessary, at practically any cost, as soon as the restrictions on building are removed, and this necessary construction will keep the cost of building high for many years. Investigations show that building to the value of over $200,000,000 has been held up during the war in the cities of New York and Chicago alone. The total in the whole country reaches an enormous sum.

The reconstruction work abroad will draw heavily upon our production of building materials and will further tend to keep prices high. It is thought by many well-informed authorities that these influences will remain for as much as ten years, and that a recession to pre-war prices may never be expected.

No effort should be made to offset the higher costs by using cheap materials and finish, for a hospital, more than any other building, should be built well if for no other reason than to keep down the burden of maintenance charges, which will become larger and larger each year in a poorly constructed building. If a compromise is necessary, let it be in the size of the building rather than in its quality.

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Closets in Private Rooms and Small Wards

In the private room, or in the small ward, a closet can nicely be built in the corner, cutting off diagonally a small triangular space. Few patients bring many clothes to the hospital, but all appreciate some way of keeping them out of sight. A door 18 inches wide by six feet high is ample, and, if the floor of the closet be raised up to the level of the baseboard, it will be easier for the help to clean it. Incidentally, this cleaning will be done oftener and more efficiently. Such closets have been plastered with Keene's Cement, including the floor, thus doing away with woodwork.

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Caring for the Clothes of Ward Patients

The problem of caring for the personal clothing of ward patients can be simply solved, while maintaining a high standard of hygiene, by using washable cloth "lockers" of sufficient size to make it possible to hang, unfolded, all clothing of the patient. These lockers may be held in place by wire grilles at top and bottom. While being filled they may be supported on portable racks in the admitting room, then carried to the general clothing storage room.

Do Not Make "Sanitation" Odious

In planning, constructing, and furnishing the hospital, do not emphasize too strongly all of the well-known "sanitary" features, such as white woodwork, flush-panel doors, round corners, etc. Use these and all similar precautions where they count, as in the operating and other workrooms; but don't overdo it, and thereby eliminate all possible attractiveness from the patients' rooms and similar portions of the building. Someone has said that a hospital is a factory for making well people; that is not true. A hospital is, or should be, a home on a large scale, where the institutional atmosphere has been eliminated as far as possible. Surround your patients with things that are comfortable, attractive, and beautiful, to the end that their thoughts may be directed away from their troubles. Risk the remote chance of a few lurking germs in pictures and books, and other things that are not smooth-faced, round-cornered, and white, in order to gain the immense advantage of the greatly improved "morale" which brings with it power of resistance to the progress of disease.

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Washing the Hands to Avoid Cross Infection

If we believe that most communicable diseases are acquired by contact, and not through the air, and that contact is largely through the hands, then why not acquire the habit of washing the hands after contact with each patient or anything the patient has touched? To make this possible, simple wash basins should be placed at frequent intervals in the wards or in the corridor, near the wards. If the valves were controlled by the elbow, this would make the process of washing the hands almost automatic, and much cross infection might be avoided.

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The Choice of a Site

One of the most difficult problems in hospital planning is caused by lack of foresight and good judgment on the part of the Hospital Building Committee, in making the selection of a site without some preliminary architectural study as to its fitness. This applies more urgently and emphatically when the proposed site is not reasonably level.

Of the various classes and types of building, a hospital certainly requires as much care in arranging the internal communications so that there is no lost motion and no loss of energy in handling food, supplies and the patients themselves. All corresponding floors should be on the same levels and free from inclined connections of any sort. An incline under the best of circumstances is an ever present source of expense and annoyance. With a level or reasonably level site no great difficulties will be encountered in this regard, but with a hillside site the problem presents difficulties which under certain circumstances may not be overcome except at great expense in excavating and grading.

While it may seem severe judgment it is far better to condemn and abandon a site even if already purchased than to build on one that will always be a source of criticism and expense.

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A Lost and Found Station in the Hospital

In an institution of any size whatever there are a lot of little items that are misplaced, such as a washer from a gas machine, a bolt from an operating table, etc. At the time these things are found, it is not known where they belong, and it is not until these articles are again needed that their loss is discovered. A Lost and Found Station, where all articles could be turned in, ought to prove satisfactory.

DEPARTMENT OF DIETETICS

Conducted by LULU GRAVES.

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Home Economics Building, Cornell University, Ithaca, N. Y.

THE DIETITIAN IN SOCIAL WORK

Undernourishment of Children a Big Problem Among Foreign Population—Solution Must Come Through Combined Efforts of Physician, Social Worker, Children's Clinic and Dietitian

By LUCY H. GILLETT, Director Dietetic Bureau, Boston

Doubtless there are few students of dietetics who under the inspiration of the classroom have not had visions of the value of the subject to the great field of social work. Surely there is no place where the realization of such dreams could be of more real value, for there is no place where the application of dietetics is more needed than in social work dealing with the undernourished child.

In almost every instance where children have been examined physically, large numbers have been diagnosed as undernourished. This is obviously not the fault of the child, nor is it entirely the fault of the mother, as her chief concern is for the health of her children. Frequently she is a stranger in a strange land, unable to get all the foods to which she has been accustomed in her own country. Because she does not know how to substitute, her diet is poorly balanced, and yet she feels that her safety lies in her reluctance to accept every new idea which is presented by comparative strangers. The fact that she has kept the majority of the children alive is to her sufficient argument that there is nothing radically wrong with her method.

Nevertheless it does not seem right to let the children suffer for the rest of their lives when preventive knowledge is available, nor is it for the best interest of the community to run the risk of these future citizens becoming a burden to society. It is somebody's problem. Who is better fitted to help with it than the student of dietetics cooperating with someone in close touch with the family? It must be dealt with through someone in whom the family has confidence.

Many cases naturally go to the physician, whose word carries more weight than probably that of any other person, but, while he may tell the mother in a general way how to feed a particular member of her family, he has neither the time nor the background to sit down and analyze her individual situation as influenced by economic conditions or the possibilities of substituting one food for another to make a more agreeable adjustment for the family. Perhaps the woman has only $10 to spend for food for a week for the whole family of six, and the doctor, realizing the importance of specific directions but not knowing conditions, may order some foods which are expensive at that season of the year when another food of equal food value but considerably more economical would do as well, or when some food to which that particular family has been accustomed would be quite as satisfactory from the doctor's standpoint and infinitely more so from theirs. But the anxious, innocent woman either carries out the directions as given at a sacrifice of food needed by the rest of the children, or goes into debt to meet the requirement. Sometimes she gives up in despair, either because she does not know how to prepare the food suggested or because she cannot afford to follow suggestions. Isn't it conceivable that a dietitian might be of great value in just such cases as this, where she might help the mother plan her meal to conform to the suggestion of the physician by telling her what might be substituted or by showing her how to prepare the food itself? At the Boston Dispensary there is a food clinic with a specialist in charge, who helps the women in just this way. The doctor gives general directions, but the dietitian shows the woman how to adapt them to her needs.

The social worker is a familiar visitor, and she, too, has the confidence of the family, but ordinarily she has not the background for advising the woman concerning the food; and, if it is a matter of showing in addition to advising, neither has she the time, although she would willingly cooperate and receive help and suggestions from someone trained in dietetics.

It is too big a problem for any one group of people to solve alone. It seems to me that it can be accomplished only through the combined effort of the doctor, the social worker, and the dietitian. The doctors are already at it, the social workers are interested and ready to receive help in doing their part, and some students of dietetics and nutrition are in the field. But there is need of many more.

That social agencies are realizing the need of action is shown by two studies which have recently been made—one by the New York Association for Improving the Condition of the Poor, in cooperation with Professor Sherman of Columbia University, and the other by the League for Preventive Work in Boston. These investigations were for the purpose of determining whether the families, when left to their own devices, get such nourishment as is needed by the growing child, and whether the mother buys to the best advantage where the strictest economy is necessary. In other words, is poverty or lack of training the largest factor in malnutrition?

The results of both these studies were in close agreement and to the effect that where there has been no instruction in food values the diet of a large percentage of the families is not such as to provide adequate growing material for the children. While we cannot deny or overlook the effect of poverty, knowledge and application of relative food values might do much toward giving many children a better foundation for health and resistance.

The deficiencies in diet occurred frequently where the amount of money spent for food was adequate to supply sufficient nourishment had it been spent wisely; or, often times, where all food factors were adequate, the amount of food consumed was considerably more than would have been necessary had there been a proper balance between the different types of food. This is especially significant in the light of signs which say "Don't Waste Food" and "Food Will Win the War." Many are sure they are not wasting food if they leave no bread or meat on the plate, while others are sure that they eat no more than enough to satisfy the appetite. It might be good conservation to preach a well-balanced diet.

The greatest danger of deficiency seemed to appear in the amount of energy supplied by the food. In the New York study of 92 families, 33 were plainly deficient in energy (supply less than 2,500 calories), and 21 might be counted as doubtful (or between 2,500 and 3,000 calories). This is making only a conservative estimate of the amount

of energy required during growth and activity of children. If we take the estimated maximum allowance upon which to base children's needs (3,500 calories), then 75 per cent were perhaps not getting sufficient energy for the best development during growth. These figures are based on the per man per day allowance.

According to these studies, there seemed to be very little cause for concern over the protein deficiency. Money was apparently spent for such foods as supplied this factor at a sacrifice to other things, such as energy, calcium, phosphorus and iron. Calcium seemed to be deficient more frequently than any other factor except energy. Since this element plays such an important part, not only in bone and teeth formation but in organic functions as well, the frequent deficiency of this element should be looked upon as a serious defect in the average diet. Iron, a well-recognized necessity, was so frequently deficient that we feel that here also is a serious problem.

These deficiencies in energy, calcium, phosphorus, and iron should help to explain the large amount of malnutrition reported among school children.

Since each of these deficiencies seemed to be quite closely related to certain types of food in the diet, they may give us a more accurate basis for guiding the public mind in its selection and consequent conservation of food.

The energy was found to be closely related to two things. First, the amount of energy decreased with the amount of money spent for meat; and second, it increased—and, in fact, seemed to be correlated—with the amount of grain products consumed.

Where the families were spending from 40 to 50 per cent of their total food expenditure for meat, the energy was markedly deficient. It is true that some of these families were not spending as much money for food as those getting more energy, but this is all the more reason why they should have been spending it in such a way as to get the best returns. The families spending 27 per cent of the food money for grain products and less for meat received the same amount of energy for two-thirds the cost. The more grain products the cheaper the diet, while the more meat used the greater the cost for sufficient energy. Where the strictest economy was necessary, the families were not getting all the energy needed until one-fourth to one-third of the total food expenditure was for grain products.

There is another important consideration in the question of energy. Although the quantities of fat and sugar are below normal market conditions just now, it is not fair to leave them out of such a discussion because both are recognized as valuable fuels, but since neither butter nor sugar contains much if any of the mineral salts, there is a possibility that the iron content of the diet may suffer by too liberal use of these foods, especially in cases of tuberculosis. It was found that in the dietaries containing the least iron, the amount of butter and sugar was comparatively high, and in those containing the largest amounts of iron, the amount of butter and sugar was correspondingly low. It seems, then, as though there might be a serious danger for growing children in deriving too much of their energy from butter and sugar, and, when these foods are combined with white bread, which is also low in iron, there is even greater danger of iron deficiency.

Iron, on the other hand, increased with the amount of vegetables and fruit more regularly than with the amount of meat used. This fact suggests that, in some families, some of the money spent for butter and sugar, sugar especially, might be better spent for vegetables and fruits when these foods are obtained in ordinary quantities.

Calcium seems to be very closely related to the amount of milk used. The amount of calcium in the diet and the amount of money spent for milk runs so nearly parallel that the results, when charted, seem more like an ideal suggestion than an actual fact. The standard allowance (0.68 gm.) of calcium in the diet was not reached until there was a corresponding expenditure for milk of 3 cents per man per day. Since milk was 9 cents a quart when these studies were made, it would seem as though at least one-third of a quart per man per day were necessary to supply the safety allowance of calcium for adults. Professor Mendel of Yale says that "animals may be in excellent nutritive condition in so far as the protein factor is concerned for long periods of time while they are still losing calcium from their bones. It then happens that suddenly a collapse comes for which there is frequently no obvious explanation." In the studies upon which these figures were based, over 57 per cent of the total calcium in the diet was obtained from the milk and cheese. The grain products and the vegetables contributed 12 and 15 per cent respectively, leaving a very small amount to be derived from the several remaining types of food. Since the calcium is so essential and since milk is such a large contributor to the supply of this element, the use of milk cannot be too strongly urged even at its present price.

From the constant observations made while studying these dietaries, it was felt that if the energy, iron, and calcium were supplied chiefly through the cereal products, vegetables and milk, there would be little danger of deficiencies along other lines. To meet these requirements, it is suggested that a large amount of grain products be used (one-fourth of the total food expenditure where the strictest economy is necessary) with a liberal use of the whole grains, such as graham flour, brown rice, and oatmeal; that the expenditure for milk be at least equal to or greater than the amount spent for meat; that the expenditure for vegetables and fruit be equal to or greater than the amount spent for meat. With this division of the expenditure for food, we feel that the money will be spent in such a way as to give the best return in nutritive value (Sherman).

Some of the dietaries with low calcium and energy were reconstructed to study the influence of less money spent for meat with an increase in the amount spent for milk, vegetables, and fruit or the total amount of money spent for these three types of food was equally distributed and the food values recalculated. It was found that a dollar spent according to the new arrangement would buy as much energy as $1.28 according to the old, with a better balanced diet.

This analysis of family dietaries helps to answer the query as to whether people, when left to their own devices, select such food as will best meet the needs of the body and whether they get the most for the amount of money they have to spend.

The Association for Improving the Condition of the Poor in New York has been applying the results of the study made by them to the family problems—especially to families of limited means—with excellent results. While this is only an extension of the work which has been carried on there for the last ten years, yet an argument backed up by actual facts has many more possibilities. In almost every instance where there were undernourished or tubercular children, it was found that the diet contained an overabundance of meat and white flour products and too little milk and vegetables. Meat and white bread are to them the "staff of life," and, having satisfied their appetites in this direction so far as a poorly balanced diet is able to satisfy it, they have no money to buy milk and vegetables, which they class as luxuries.

In almost every instance where the diet was changed to conform to the above suggestions, the children improved in health and in weight, and it was frequently found that the mother was spending considerably less for food. Less meat, less wheat, less sugar, more milk, more vegetables, and more whole grain cereals work toward conservation of food, conservation of health, and conservation of money with more happiness.

One case in particular is interesting. It is the pathetic story of a boy who was anxious to help his mother support the family but was not strong enough to work. He had been sent away to a malnutrition camp, where he gained in weight, but a few months on the old diet put him back into his old condition again. A social worker became interested, and, with the advice of a dietitian, she helped the mother plan his diet. Her means of attack was through an account of what was spent for each type of food. With this as a basis, she found it much easier to talk to the woman in terms of more or less money spent for meat and vegetables. Until she had it down in black and white, however, her "little meat a day" and our "little meat a day" were not statistical figures fit for comparison.

The change in diet was gradual, for food habits are of long standing, and new ones, like an education, cannot be gained in a day. But the final result was that at the end of three months the boy gleefully told his adviser that he was feeling so well and strong he knew he could work that summer and would not have to go to camp, and the mother added, "and I have spent a dollar less a week for food, too." This is only typical of many such examples. The case had been diagnosed as malnutrition. This meant to the mother too little money spent for food, but from her scant resources she did not know how to spend more.

The influence of the dietitian is too limited where her work is confined to the individual family alone. Her function in the social field should be two-fold. She can reach the largest number of families through consultation with the workers in regard to the families whom they visit regularly, advising them with regard to their various problems and working out and simplifying for them applications of the various principles of dietetics which should be practiced in every home—especially where there are growing children. She may also help by accompanying the social worker on visits to homes where special assistance is necessary, but her intensive efforts should be reserved for families in which there is an undernourished condition or other diet disease. If, in cases in which the dietitian herself goes into the home, she keeps the regular visitor informed with regard to the suggestions which should be given, both may emphasize the same thing with more than double the influence which either would have alone.

The most effective work can often be done with the children because the mother needs to know child-discipline quite as much as she needs to know child-feeding. That bland and all-sufficient argument, "See, Tommy no like milk, all Tommy likes is coffee," is to her an insurmountable difficulty.

One of the easiest ways in which to interest children is to give them a weight card to study, then have them weighed and let them compare their weight with the standard. The Child Health Organization has just issued a card for such purposes with the normal weight for the age and height of both boys and girls, and one of these will often impress a boy or girl where hours of talking fail. The point of view of the child is that if he is not sick in bed why bother about an indefinite future? But to see something actually happening is a different matter. Many a child has given up coffee and eaten oatmeal for breakfast every morning just for the sake of seeing the line which records his weight on a weight chart go up to normal. A nutrition class is still better as a means of getting the children to eat what they should, as the spirit of competition spurs them on to see whose weight goes up to normal first and the emphasis is not too much on either food or health.

Competition and class work are used as an incentive through which to arouse the interest in the food problem. Discussions once a week are used as the basis for emphasizing important factors in proper eating and, if the mothers are also persuaded to be present, so much the better. The results are good from the class alone, but they are much more effective if the class work is followed up with visits to the homes by someone who can show the mother how to meet her individual problem. There must be some teaching in preparation of food—especially with the foreign population, who are not accustomed to American foods. By this I do not mean that we should try to change the food habits of any other nationality to conform with our own, simply for the sake of Americanizing them. I believe we should do this only in so far as their diet needs to be supplemented, for the sake of health, by some of our foods with which they are unfamiliar.

It is immaterial from the nutritive standpoint whether they cook beans, cabbage, and potatoes together or separately so long as they get the food value in a digestible form.

Several clinics based on this principle have already been started. Dr. Emerson of Massachusetts General Hospital in Boston has been the pioneer, followed by Dr. C. H. Smith at Bellevue and Dr. Stark at Post Graduate Hospital in New York. Last spring Dr. Emerson went to New York to try out a clinic in connection with one of the public schools. Just recently the Association for Improving the Condition of the Poor has established several nutrition clinics in connection with its work, two in connection with milk stations and one in connection with one of the public schools. Before admittance each child is examined by a physician for physical defects, as, needless to say, food is not always responsible for underweight in children and much time may be wasted in trying to build up the weight and strength with proper food when some factor other than malnutrition is at fault.

There are various ways in which this problem of helping the family may be accomplished. Each social agency has its own problems and requires methods adapted to its own particular needs. Some agencies deal with the family problem as a whole, some are interested primarily in health (such as nursing associations, where nurses go into homes to advise or assist), some hospitals maintain a social service department from which workers go out to investigate and help conditions in the homes of the patients, and some agencies deal exclusively with the care of children. But each and every one of them comes in contact with the family problem.

In Boston there is a society called the League for Preventive work. It is made up of eighteen social agencies, each coming in contact with families and children through one of these various constituents. Its function is first to study the causes of misery and then to promote a constructive program. The study of family dietaries made by this league in the summer of 1917 aroused the various agencies to such a realization of the seriousness of lack of proper feeding for the child that a dietetic bureau has been established as a part of its constructive work. The problem of undernourishment is recognized as a social evil.

An attempt to combat it means more work now, but any organization which will make the attack is looking toward a cleaner, healthier community in the future. The bureau does not limit its opportunities to the agencies which are directly connected with it, but, recognizing the problem as a social one, extends its invitation for consultation to the city and state in general.

We are to have a standardization record card which will admit of studies of causes and conditions of cases reported. We hope to standardize suggestions given to families, so that they will not be confused and discouraged by conflicting and contradictory bits of advice. It is felt that if each one who comes in contact with families urges the proper feeding of children with consistent suggestions, the combined efforts of all will eventually accomplish what isolated attempts could never do. Much energy is wasted in trying to justify one opinion against another. Is it any wonder that strangers who come to our cities are confused with such a diversity of opinion?

We have had conferences with some of the leading child specialists of Boston, and from their combined suggestions we are formulating diets for children of various ages, so that the doctor, the social worker, and the dietitian may give the same advice. The aim is to make the directions simple, practical, and economical, and such as can be carried out in any home. Each sheet of suggestions is to be the result of conferences with various people interested in a particular subject, with the final criticism from the social worker herself. She is the one who understands the psychology of the family best, and dietitians should naturally turn to her for approval as to form and simplicity.

Personally, I believe that the solution of the problem of the undernourished child lies with the doctor, the social worker, and numerous food or nutrition classes supervised by dietitians, where children and mothers may be instructed with regard to specific foods and their methods of preparation, together with follow-up work in some of the homes. In the words of Kipling:

"It ain't the individuals
Nor the army as a whole,
But the everlastin' team-work
Ov every bloomin' soul."

If a dietitian has any time which she can devote to social betterment, that time, it seems to me, could be spent to no better advantage than in helping some social agency already in the field. We must serve as interpreters in dietetics, because there is a long distance between the information given in textbooks and in the classroom and the facts which must be transmitted to the average woman in the home, especially where economy is necessary and where the health of the children is in the balance.

The social worker appreciates most heartily suggestions which are worked out in such a way as to be of practical use to the family. Although she has not time to absorb the whole subject of dietetics, she respects material which she knows has scientific background and which can be defended on a scientific basis.

We need the social worker, and she needs us. We both depend on the physician, and we can help the physician in this phase of social work. These coworkers have an interresponsibility which cannot be overlooked. All the best-laid plans of the three types of workers put together won't solve the problem without hard, earnest work and a determination not to be discouraged by any doubting Thomas. The problem is difficult but not impossible; and the fact that it is hard is not sufficient reason why we should settle back and let conditions grow worse. It must be faced. Now is the time to show the true value of dietetics where it is most needed. Is there not some organization near you that would welcome your suggestions? If any one longs to do a worth-while piece of work, she could find no better field than that with undernourished children.

Opportunities for the work are growing. With the movement of child welfare, children's clinics are being opened up, social agencies are becoming more active, settlements are wondering how they may assist, and each and every one of them is asking to whom they may turn for help.

If any one wants to plan student work in preparation for this field, let me suggest that, in addition to a thorough training in dietetics and its allied subjects, an acquaintance with social problems, sociology, economics, statistics, sanitation, hygiene, and social disease is quite helpful. Without a knowledge of one or all of these subjects, it is almost impossible to deal with some of the problems which are met. If one is going to do any extended work along this line, some research experience is also most valuable, as there is always an opportunity to study—and frequently a necessity for studying—the relation of cause and effect. Experience in research helps to safeguard one from making premature decisions.

Before trying to assist someone else to help a family, however, it is quite essential to have had first-hand experience in this work. To get such experience, select a family from each of several different nationalities which have undernourished children and persuade them to change their food habits only enough to conform to the laws of health. Not until a person is armed with this success should he consider himself ready to advise others how to do it; and such a knowledge can only be gained by experience. Let me urge above all else, however, a cultivation of open-mindedness, a willingness to cooperate, and a desire to learn from those who have had experience in connection with family problems.

Worth-while and permanent results are reached only gradually and, in work with families, one has to remember not only that "Rome was not built in a day" but also that Rome would never have been built had there not been a beginning.

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RELATION OF FIELD DIETETICS TO SOCIAL SERVICE

Best Results Accomplished When Close Connection Is Maintained—Work of Field Dietitian Outlined

By BLANCHE M. JOSEPH, Field Dietitian, Emanuel Mandel Memorial Dispensary, Out-Patient Department of Michael Reese Hospital, Chicago

Field dietetics in connection with social service work is today an essential item, and investigation has proved it necessary in more ways than one.

A social service worker has no small task when visiting the homes of those who make it a habit to patronize dispensaries, for this class of people almost demand something for nothing. As a rule, they are ignorant foreigners, and their mode of living makes it hard for the social service worker; but, when she has adjusted herself to their habits, etc., she can make out intelligently both their budget and their diet list.

In field dietetics there are two distinct departments, the clinic work at the dispensary, where the attending physician diagnoses the case, and the follow-up work which is done by the dietitian if the patient is able to come to the dispensary for practical work in the preparation of

food. Too much stress can not be put on the preparation of food, for, among the families in poor districts, particularly foreigners, the greatest evil is lack of knowledge in cooking.

The follow-up work done by the dietitian consists in seeing to it that the instructions regarding diet, cooking, etc., are carried out. If the instructions are being followed and results are being obtained, a volunteer social service worker, who has also been instructed in dietetics, follows the case up closely, going once a month to the home. In cases of necessity, more frequent visits are made, depending entirely upon the patient.

The old-time theory of keeping the patient free from the knowledge of his particular case has now been found impracticable. Allow the patient to know the cause and effect of food values, how to build menus for special diets, etc., and he will reap the benefit of your scientific knowledge, which is necessary if he is to live up to the standard and prolong his life.

In the field work, when building menus for the patient, the income must always be kept in mind by substituting the cheaper foodstuffs for those which were given in the ward hospital, where cost was not taken into consideration, for the vitality of the patient depends greatly upon his food and the method of cooking it.

Many problems must be worked out for these unfortunates—how to provide food for the winter, etc. This is done by taking them, when possible, directly to the large city markets, buying the vegetables which are seasonable and reasonable, and then having the patients can the vegetables and fruits. Two purposes are accomplished by doing this in the diet laboratory; first, it gives the patient the knowledge of buying in the open market at the very lowest cost; and secondly, there is a saving, for the canned goods can be used for the following winter's consumption in class work.

At times one feels that it is not only the sick who should be instructed in field dietetics, but also the well, for preventive work is the constructive work which brings the best results.

Little mothers' classes were formed during the past summer by taking the young girls of fourteen to sixteen years old from these homes and teaching them the art of plain cooking, in order to help their mothers. When this class was formed, fourteen members registered, and at no time was the attendance less than eleven. Unfortunately, owing to lack of time, this class had to be discontinued, but it is hoped that another one may be formed during the coming winter.

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A SYSTEM OF DIETARY FOLLOW-UP WORK

Out-Patients in Minneapolis City Hospitals Kept in Direct Touch with Institutions by System of Diet Supervision—Food Problems in Homes of Patients Solved

By BETH B. TITUS, Head Dietitian, Minneapolis City Hospital.

Patients of the Minneapolis city hospitals whose cases are of a nature which requires trained supervision of diets for a period after their discharge are no longer required to rely upon their own initiative or information for proper feeding. A system of dietary follow-up work, established during the winter of 1918, now keeps such individuals in direct touch with the institution until special attention is no longer necessary.

This has indeed been an undertaking of proportions, for the city of Minneapolis maintains four hospitals: City Hospital, for general medical and surgical cases; Hopewell, for tuberculous patients; Lymanhurst, the baby hospital; and a hospital for contagious diseases. These have a total of 800 beds, with an average of 450 patients discharged each month, and a large percentage of these remain out-patients for varying periods, depending, of course, upon the nature of their cases.

At the time they are sent back to their homes, all out-patients are given detailed instructions for their own care. That a check may be kept on their procedure, they are required to report periodically at the dispensary, where they are advised and treated, and where their progress is closely watched.

At the dispensary, the dietary department of the hospital is given the patient's history, a record of the physician's instructions, and any other information which may be needed. A dietitian, assigned for this particular work, then assumes personal charge of the feeding. She goes into the home, investigates, advises, demonstrates the preparation of food, and makes a detailed report on the conditions found. A part of this work is what has come to be vaguely referred to as "social service." In instances where the dietitian is assigned to a case, she is under the supervision of the hospital staff.

Now, in war time, with the cost of food continually rising, the dietitian is of particular value in homes where illness has made inroads on all too slender incomes. At times the problem of getting food is, in itself, a perplexing one; but the problem of getting proper food is baffling to a large class of people. In this particular point, trained assistance in arranging household economies and in rendering an idea of food values is a great asset. When conditions are found to be such that the burden of keeping alive is too great to be carried by the individual or family without help, the dietitian in charge refers the case to the social service department, and, through them, aid is obtained from the board of charities.

The great bulk of the work is with tuberculous patients, diabetics, the several contagious diseases, and cases of ulcers of the stomach. The remainder is with babies discharged from Lymanhurst. The work with babies is growing, and its importance cannot be overestimated.

This work is a splendid training for the pupil dietitians, of whom there are at present five in the hospital. Their course of study covers four months, and, during the last month of study, each pupil is given the out-patient work. This enables her to follow many cases through a long and varied program of treatment, as she is brought into direct touch with some of the patients whose food she handled in the diet kitchens of the various hospitals. At the same time, she is charged with the supervision of the milk room at Lymanhurst, and, as much of her outside work is with children, she is in particularly close touch with the progress of those who leave during her administration. Three half days of each week are set aside for the out-patients, and during each period she averages over a dozen calls.

This work, while new to Minneapolis, is not an innovation in this country. Intelligent care of the diet of out-patients is doing much wherever it is given a trial, presaging the time when such hospital service will be in general practice throughout the United States.

* * * *

NEWS NOTES OF DIETITIANS

Miss Minnie Phillips, University of Illinois, 1917, who has spent the last few months as a student dietitian at the New Haven Hospital, has accepted a position as instructor of applied nutrition at the University of Iowa.

Miss Grace Van Aken has resigned her position at the University of Michigan Homeopathic Hospital and is attending Teachers College, Columbia University.

Mrs. Beth Titus has left the Minneapolis city hospitals to take charge of the dietary department at St. Barnabas Hospital in Minneapolis.

Miss Marion Peterson, who resigned her position at St. Luke's Hospital, South Bethlehem, Pa., early in the summer, is at present supervising the dietary department of the Ann Arbor Private Hospital.

Miss Gladys Bradbury, who for some two years was in charge of the diet kitchen at the University of Michigan, is now in charge of the dietary department of the Children's Hospital in Boston.

Miss Marguerite Bennett, who has been at Camp Merritt during the summer, was appointed head dietitian in charge of the unit of twenty-four dietitians which sailed for overseas duty November 19.

Miss Margaret Sawyer is doing special work on diets for aviators in the Post Hospital at Houston, Texas. Miss Sawyer's work in metabolism at the University of Iowa was such that we anticipate some valuable information will be given us in this new line of dietetics.

Miss McClurg has given up her work as assistant dietitian at Lakeside Hospital, Cleveland, on account of her mother's illness.

The marriage of Miss Margaret Chalifoux and Dr. John Allan Wyeth occurred early in November. Miss Chalifoux was formerly dietitian at Polyclinic Hospital, New York City, and Dr. Wyeth is president of that institution.

Heliotherapy and Thalassotherapy

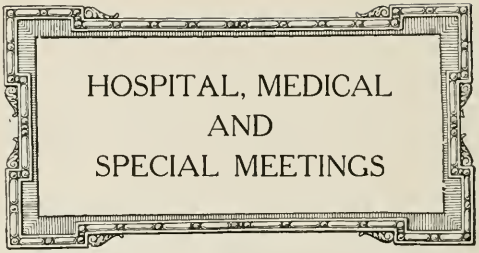
Altitude or Seacoast?

In a recent *Revista de Medicina y Cirugia de la Habana*, is an interesting article on this subject by F. José Velez.

The author has visited the French sanatoriums on the Mediterranean coast: he has observed the fine results obtained at the institutions of Leysin, Davos, and St. Moritz, Switzerland; he has seen the work of the Italian seacoast sanatoriums, and he has come to the conclusion that high altitude is not indispensable for the cure of surgical and pulmonary tuberculosis. The curative property of the sunlight is due to the violet and ultraviolet rays, and these will have full effect provided the air is pure, which is the case on the seacoast of Cuba. The latter has some advantages which the mountains lack, a more equal temperature throughout the year and sunlight during the greater number of days. But this energetic therapeutic agent requires an intimate knowledge of its action. Its application demands men of experience, and it should, therefore, be carried out only in institutions expressly established for this purpose.

An Indian Creche in Bangalore

This institution was established by the municipality of Bangalore in 1913. A private building in the heart of the city was rented for the purpose. The number of admissions is limited to twenty-five infants. The nurse in charge resides at the building. The youngest babies are from one to two weeks old. Children above two years are not admitted, neither are ailing infants received. All children are daily given a bath. The food for babies under six months consists in cow's milk suitably diluted and sweetened. The older children are given gruel with milk, light rice-cakes, boiled rice with vegetables and bread. The institution, with the limited means at hand, has done valuable work during the five years of its existence, of which an account is given by S. Amritaraj writing in a recent issue of the *Indian Medical Gazette* of Calcutta. A great number of such establishments are needed to fill all the needs.



PUBLIC HEALTH—THE TOPIC OF THE HOUR

The Forty-Sixth Annual Meeting of the American Public Health Association

The annual convention of the American Public Health Association, held in Chicago, December 8 to 12, had been originally scheduled for October 14 to 17, but the outbreak of the influenza epidemic made it impossible for the speakers and officers from the East and South to leave their respective posts of duty at home, and hence would have seriously crippled the meeting.

Influenza, its etiology, the prophylactic measures to be employed against it, the methods of treatment, and the administration measures for prevention and relief, were naturally among the most important and interesting subjects discussed. While a great deal of valuable experience bearing on the efficacy of prophylactic inoculation, of closing public places, of the use of masks, etc., was presented and warmly discussed, the whole field was still too new for finality, and the papers and discussions, though most interesting, are too extensive for even the most summary abstract here.

Conclusions Regarding Influenza

A committee composed of Dr. W. A. Evans, Chicago, chairman, Dr. D. E. Armstrong, Framingham, Mass., Dr. W. T. Woodward, Boston, Dr. W. H. Davis, Washington, D. C., and E. W. Kopf, New York, was appointed to sift the available evidence and draw up such conclusions as are possible in the present state of our knowledge. Among the more important conclusions of the committee were the following:

Deaths resulting from influenza are commonly due to pneumonia caused by one or more forms of streptococci or pneumococci or by the so-called influenza bacillus or bacillus of Pfeiffer, the invasion of the lungs being in each case apparently secondary to the initial attack.

"Evidence seems conclusive that the infective micro-organism or virus of influenza is given off from the nose or mouth of infected persons. It seems equally conclusive that it is taken in through the mouth or nose of the person who contracts the disease and in no other way except as a bare possibility through the eyes by way of the conjunctivae or tear ducts."

If this be admitted, then, the committee concludes, it is not necessary to await the discovery of the specific micro-organism or virus before taking preventive action, along the following lines: (1) breaking the channels of communication by which the infective agent passes from one person to another; (2) rendering persons exposed to infection immune or at least more resistant by the use of vaccines; (3) increasing the natural resistance of persons exposed to the disease.

1. The channels of communication may be broken by (a) prevention of droplet infection (of prime importance); (b) sputum control (the danger here seems to be due

chiefly to contamination of the hands and common eating and drinking utensils); and (c) supervision of food and drink (apparently unimportant as channels of infection).

2. In regard to the use of vaccines, the committee finds that, as the causative organism is unknown, there is no scientific basis for the use of any particular vaccine against the primary disease. The use of vaccine for the complicating infections rests on more logical grounds.

3. "The committee suggests that physical and nervous exhaustion should be avoided by paying due regard to rest, exercise, physical and mental labor, and hours of sleep. The evidence is conclusive, however, that youth and bodily vigor do not guarantee immunity."

Among administrative procedures, the committee recommends: The passage and enforcement of laws requiring proper ventilation and prohibiting the common drinking cup and the use of imperfectly washed glasses at soda fountains and other public drinking places; the prohibition of nonessential gatherings of crowds; the regulation of necessary gatherings so as to insure to each individual the maximum of floor space and fresh air; the closing of theaters, moving picture shows, saloons, dance halls, etc.; the reduction of church services to the lowest possible number; the prohibition of public funerals and accessory funeral functions; the employment of variable opening and closing hours in stores and factories to prevent overcrowding of street car and other transportation lines; the compulsory wearing of masks in hospitals and for all who are directly exposed to infection, especially barbers, dentists, etc.; and the isolation of influenza patients and the placarding of houses where proper quarantine regulations are not observed.

The committee agreed that no beneficial results could be derived from the use of alcoholic liquors.

Vitality and Inclusiveness of the Program

Apart from the influenza discussion, two impressions were outstanding from the program. One was the liveness, the exceeding practicality, of public health topics, and the other, the inclusiveness of the province of public health. Almost every subject led straight up to one or more of the burning issues of the day and thence out into general medicine or economics, or civics. Subjects such as health insurance and the relation of wages to public health evoked warm and interesting discussion. Major W. A. Sawyer, in discussing Mr. Michael M. Davis' paper on group medicine, remarked that, in the past, the practice had been to draw circles around certain areas and call them public health and to ignore what lay outside of these circles. Thus, a man who had tuberculosis was of interest from the point of view of public health and would be taken care of; a man who had appendicitis was of no interest and must take care of himself. Waste of effort and of life was the result of this arbitrary differentiation.

Of the many valuable papers read, it is possible to notice here only a few, and that in the most summary manner.

President Hastings' Address

The president of the association, Dr. Charles J. Hastings of Toronto, said that if the association were to stand as an association for the principles of democracy it must see that an efficient public health administration is maintained in every state in the Union and every province in the Dominion. Why, he asked, should many municipalities have an infant death rate of 120,150, or even more, per thousand births, while Chicago has an infant death rate of 106 per thousand births, New York City, one of 91 per thousand births, and Toronto, one of 80 to 85 per thousand births? Why should various cities in the United States have, in 1917, a typhoid death rate of over 50 per hundred thousand, while fourteen other cities have a typhoid death rate of less than 5 per hundred thousand? Every city in the American continent is entitled to the same public health advantages as the most favored cities with the low death rates mentioned.

To the end that the association might be able to promote the measures for which it stands, the executive officers have been devoting their energies to increasing the revenue, with such good effect that, whereas last year showed a slight deficit, the fiscal year ending August 31, 1918, showed a balance in the treasury of $5,330. This increased revenue has been derived mostly from corporate memberships, varying from $50 to $1,000, obtained from fifteen insurance companies and amounting to $4,340.

Dr. Hastings rather startled his audience by the revolutionary character of some of his remarks. "If I had but one method to choose to improve the health of the working classes," he said, "I should double their salaries."

The Work of the Department of Health and Sanitation of the United States Shipping Board

This subject was discussed in a paper by Lieut.-Col. Philip S. Doane, director of the Department of Health and Sanitation of the United States Shipping Board, who goes further into the same subject in an article prepared for THE MODERN HOSPITAL and published elsewhere in this issue (page 17).

Their line of work was planned upon the principles of camp sanitation which were worked out after the disastrous experiences of the Spanish war, but, in applying these principles, the board faced a difficulty with which the army has never had to cope—lack of discipline among the men. From beginning to end the question has been one of diplomacy, and Colonel Doane praises very highly the cooperation which the board always received from local health officers.

Everywhere the board worked in connection with authority already established, and, quite apart from the shipbuilding industry, there are many places which will long be grateful for the work which the board has done for them. In one town which supported a large shipyard on the lake, the drinking supply was found to be very badly contaminated by the Detroit River. The board put in a filter to take care of the drinking water of the shipbuilders temporarily and, at the same time, started a campaign of education in the town which ultimately resulted in a bond issue for the purpose of improving the drinking supply.

Another very significant example of success in winning cooperation is found in the case of Bath, Me., where sanitary conditions were very bad. This town could not afford to support a health official of its own, but an arrangement was reached whereby the board was allowed to place a man in this office who was vested with all the local authority which the town's own officer would have had.

The policy of working with the current was followed with the board's dealing with the men as well as with local authorities. They had no machinery for enforcing rules; so they relied on education and persuasion instead. Their method with drinking water illustrates this point. "We recognized the fact," said Colonel Doane, "that so long as water is wet, a thirsty working man will probably drink it regardless of warning signs." The solution was to make impure water inaccessible. Not only was good drinking water provided, but no other could be had, either for bathing or watering the grass.

Working on these general lines, the board was uniformly successful in the many different situations in which it worked. The problem was mainly one of sanitary engineering—drinking water and sewage—but these were not the only questions to be considered. Everything which had to do with the well-being of the men engaged in this great industry was carefully looked after. In the great shipyards where the men lived in the barracks, the condition of these barracks was the subject of investigation and suggestion, and, where the men went to homes in neighboring towns, the housing conditions, restaurants, and places of amusement were considered.

Dispensaries and hospitals were provided, and the men were encouraged to report and care for every sort of illness.

The Effect of the High Cost of Living on Public Health

Dr. Louis I. Harris, director of the bureau of preventable diseases of the Department of Public Health of New York City, raised the question whether public health nurses were not too often becoming mere bookkeepers to collect data which could just as easily be obtained through clerks without professional training. As an example of the valuable work which public health nurses can do when properly directed, he cited an investigation which had recently been carried out in New York on the effect of the high cost of living on working class families. The investigation covered 2,084 families, comprising 10,603 members, distributed racially and nationally among Hebrew, Irish, Italians, Austro-Hungarians, Germans, white Americans and colored persons. The range in incomes extended up to $5,000 a year. Of these families, 434, or 21 percent, had incomes ranging from $300 to $600 a year; 30 percent had incomes ranging from $600 to $900; 445 families, or 21 percent, had incomes ranging from $900 to $1,200. Over 70 percent of these families, therefore, had incomes under $1,200 a year. Ten percent were for the first time resorting to charity; 10 percent more were in debt. A tabulation of the dietary limitations showed the number of families that were dispensing with, or reducing the amount of milk, butter, eggs, etc., consumed in the household.

Food Needs of Military Hospitals

Major R. G. Hoskins of the sanitary corps explained that there are several differences between military and civil hospitals which affect the food supply question. In the first place, several diseases which in civil hospitals require dietary treatment for extended periods of time are seldom encountered in military hospital practice because such patients are discharged to other care. The proportion of men practically well is high in military hospitals. In the second place, a more rigid discipline is necessary in military than in civil hospitals. In the third place, an attempt is made to make the civil hospital a more or less attractive place to patients. There is naturally less solicitude on this point in military hospitals.

The general plan of organization of the base hospital mess is that the final local authority is the commandant; directly under him is the mess officer, who is usually an experienced hotel manager, or a mess sergeant, commissioned in the sanitary corps; associated with him, sometimes directly under him and sometimes directly under the commandant is the dietitian, with one or more assistants. The dietitian is usually trained in domestic science, but inexperienced in hospital work. The mess officer has the assistance of several sergeants in such matters as supplies, accounts, kitchen and dining room management, etc. Separate messes are typically maintained for sick officers, nurses, sick enlisted men, and hospital corps men. The segregation of the last two classes is generally incomplete. The officers' mess and nurses' mess are quasi-independent institutions.

The term "light diet," is ambiguous; sometimes it means easily digested, sometimes low in caloric value. It is usually interpreted by dietitians as meaning both. "Conditions would be more intelligently met if the requisitions from the various wards would specify the approximate number of calories desired and the distribution of this among the food components. In other words, the dietitian should be placed in a position closely analogous to that of the hospital pharmacist, rather than made, as she often is, the senior consultant working under the handicap of never having seen or heard of the individual patient for whom she is prescribing. To save labor, the light diet is often made up largely from the regular and may be merely the latter with some dish omitted."

The least satisfactory diet is that known as the regular. This is commonly compiled by mess officers or mess sergeants, unacquainted with dietary requirements, to meet the needs of normal persons and patients with widely varying needs. Major Hoskins mentioned eight classes, treated approximately alike. These were: (1) normal men, doing fairly hard work, requiring 3,500 calories; (2) ward attendants, normal men at sedentary work, requiring 3,000 calories; (3) ambulatory patients, metabolically normal, requiring 2,600 calories; (4) patients spending some time out of bed, but confined to wards, requiring 2,200 calories; (5) bed patients, metabolically normal, requiring 1,800 calories; (6) subacute febrile patients (especially those with empyema), with high caloric and high protein requirements; (7) other convalescent patients needing general feeding, but with poor appetites; (8) patients having constipation and needing laxative diet.

Major Hoskins gives the following table of food consumption at a base hospital:

	Pounds Consumption for One Week	Pounds per Man per Day
Bread	7,120	0.273
Potatoes	5,544	0.212
Beef	5,555	0.212
Fish	613	0.023
Milk (fresh)	9,483	0.363
Milk (evaporated)	2,775	0.106
Oranges	723	0.028
Beans (dry navy)	258	0.010
Sugar	3,085	0.118
Tomatoes (canned)	570	0.022
Peaches (canned)	630	0.025

Total number of commodities, 98.

The highest food waste, he says, is in the use of concentrated foods where these are not necessary. The elimination of waste is highly important, and the amount of waste in different hospitals varies greatly. In one hospital observed, the twenty-four-hour accumulation of garbage, for 823 persons, amounted to 1,660 pounds. In another hospital, in which a conservation officer was utilized, the edible waste was held down to 0.4 ounces per man per day, or less than three pounds per hundred men.

Officers Elected for the Coming Year

Dr. Lee K. Frankel of New York was elected president of the association for the coming year. New Orleans was chosen as the next meeting place. Other officers elected were: First vice-president, Col. J. W. S. McCullough, Toronto; second vice-president, Col. Victor C. Vaughan, Ann Arbor, Mich.; third vice-president, Dr. John Dill Robertson, health commissioner of Chicago; secretary, A. W. Hedrich, Boston; treasurer, Dr. G. H. Sumner, Des Moines, Ia.; members of the executive committee, Dr. A. J. McLaughlin, Washington; Dr. C. J. Hastings, Toronto; Dr. Peter Bryce, Toronto; Dr. J. N. Hurty, Indianapolis; Dr. W. C. Woodward, Boston.

DEPARTMENT OF NURSING

Conducted by ANNIE W. GOODRICH, Dean Army School of Nursing and CAROLYN E. GRAY, Principal City Hospital School of Nursing, Blackwell's Island, New York.

Please address items of news and inquiries regarding Department of Nursing to CAROLYN E. GRAY, Principal City Hospital School of Nursing, Blackwell's Island, New York.

THE TRAINING OF THIRD-YEAR STUDENTS IN PUBLIC HEALTH NURSING*

Education of Nurse a Vital Matter to Country at Large—Problem of Special Preparation Can Be Met Only by Patriotic Cooperation of Training Schools and Public Health Agencies

By HARRIET FROST, Head of the Teaching Department, Visiting Nurse Society, Philadelphia.

While the desirability of giving to undergraduate nurses some training in public health work has been generally conceded, it has hitherto been considered chiefly in relation to the educational equipment of the nurse rather than to the needs of the community. The ready response of hospitals to the demand for a broader education of the nurse is both gratifying and significant of a tendency to look beyond the needs of the institution to those of the community. Quoting from a report of the educational committee of the National League of Nursing Education, "The war is making us realize what the public generally and the training schools have been slow to recognize—that nursing is, in a very special sense, a national service and that the training of the nurse is a matter of vital concern not only to the hospital and to herself but to the country at large. It is not enough that she should serve the needs of a single institution or of a limited group of people. She must be ready to serve the community and to meet conditions as she finds them in many different kinds of communities."

In taking stock of the educational system of our training schools, we must follow the lead of other professions and industries directly or indirectly engaged in winning this war and discriminate carefully between essentials and non-essentials, being guided in this discrimination by public demand rather than by time-honored traditions.

Let us consider for a moment just what the public is demanding today of the nursing profession.

1. First and foremost, skilled care of our soldiers and sailors.

2. Attention to the health and general welfare of those engaged in war industries, such as munition factories, shipyards, etc.

3. Extension of this same skilled care, through hospital or home nursing, to the families of those in military service.

The last two requirements, since they include all of preventive work, cover the entire field of public health nursing.

Perhaps nothing short of war could have so aroused a nation to its health needs, and a movement which for twenty years has crept along slowly by inches is now going forward by leaps and bounds. Communities that were once lukewarm, if not actually antagonistic, to any health program are now seriously asking what they must do, and are *doing* it.

Child welfare, which a few years ago was limited to spasmodic efforts in the form of baby shows, is now the serious concern not only of the nation, but of each community and each individual. Through the Woman's Council of National Defense and under the direction of the Children's Bureau, the women of this whole land are banded together in a grim determination to check the terrible waste of baby life. In many instances these committees of women, with funds in hand to carry on the work, are clamoring for trained public health nurses to organize their efforts and put them into effect at once.

Industrial plants, especially those employing women in large numbers, are realizing as never before the value of the industrial nurse in safeguarding the health of these workers both in factory and home.

With the present scarcity of doctors and with the civilian hospitals taxed to their utmost, visiting nurses are needed to fight disease in the homes of our people, where frequently in time of epidemics we find entire families stricken, as for example, in the present epidemic.

It is an injustice to the nurse and positively detrimental to the work to send into these fields women who have not been specially trained and prepared for the conditions they will meet.

Although an increasing number of schools are offering post-graduate courses, few nurses at the present time can avail themselves of this opportunity. Hence, we must turn to the source of supply, which is the training schools, and ask them, as a patriotic measure, to give their pupils this preparation, not as a substitute for post-graduate work, but as a means of meeting this national emergency.

The following is a resolution passed by the women's committee of the State Council of Defense:

"*Resolved*, That it is the sense of this meeting that public health nurses are absolutely essential in carrying out the program for Children's Year. We feel that there is at present a great shortage of public health nurses. The conference requests the subcommittee on public health nursing of the Council of National Defense, as well as the National Organization for Public Health Nursing, to devise and carry out ways of increasing the supply of public health nurses in the present emergencies. The conference also urges that the State Councils of Defense will use their influence upon universities and schools having nurses' training to provide the special four-months' course in public health nursing, which is so urgently needed."

No doubt, in every institution represented here, some of your hospital staff are wearing the special chevron given by the Red Cross to show that the service they are rendering to the civilian is considered of equal importance to that given to the soldier in cantonment or overseas. The other type of service so recognized is that of the public health nurse.

The addition of this course, involving, as it does, certain readjustments in our curriculum, may seem particularly difficult in these times of increasing demand and decreasing supply, but, like all problems of the present day, the need for action is immediate.

The course as generally adopted consists in a four months' affiliation with a public health agency which has approved teaching facilities as well as opportunities for field work under skilled supervision. The ideal plan, of course, is to utilize, when available, the facilities of the

* Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, Sept. 24-28, 1918.

university, but the chief value of the training lies in the close connection between theory and practice.

While this whole subject belongs more especially to the educational department of the hospital, it seems a most appropriate time to enlist the interests of hospital superintendents, to whom, after all, the problems of each department are finally referred.

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PUBLIC HEALTH NURSING AND THE WAR*

War Has Shown Need of Preventive Medicine and Health Teaching in Homes—Requisites for Properly Equipped Nurse—Co-ordination and Extension of Public Health Nursing Through War Agencies

By MARY BEARD, President National Organization for Public Health Nursing.

Nothing could have promoted the ideas of preventive medicine so rapidly as the war has done. Physical examinations for the draft have shown the very great need for corrective work in early childhood. The public protection of maternity and infancy has never before received so much intelligent thought. Effective organization of child welfare work including government grants of money has reduced the infant mortality rate in England, France, and Germany. The presence of thousands of men gathered together in the cantonments has been the means of establishing organized protection of the surrounding communities from communicable disease. Such organized protection has become a matter of individual concern in many localities which heretofore have been ignorant of or indifferent to the importance of this subject. Industry has had its share in awakening the public to the value of measures which deal with the principles of preventive medicine. Its unprecedented "turn-over" of labor, which has meant the sudden congregation of great groups of strangers in localities where war industries exist, to be housed and fed, sent to school, and given proper facilities for recreation and health, has startled the public into attention.

Protective measures on the part of such great war organizations as the Red Cross and the Council of Defense have greatly increased and assisted this awakening of the public conscience. Departments of health in the several states are receiving a much more general response to educational propaganda, and in consequence such official health work has become greatly enlarged. Much private health work has been co-ordinated with official health work.

Preventive medicine has but one agent to recommend to meet the demand for health teaching in homes, in factories, and in schools, and this agent is the public health nurse. She is indispensable to all these health activities. In England, a thorough study of the subject brought the conclusion that a "home health visitor" to do effective child welfare work should have under her care not more than eight hundred families. If we accept this standard, we must set ourselves seriously to determine how health visitors may be found, educated, and directed in the best way. The graduate nurse has been considered the best material from which to develop the public health nurse.

A knowledge of illness and the care of illness is a very valuable asset to the visitor who wishes to gain a welcome in homes where the laws of preventive medicine must be taught. Whatever else may be added to this foundation of homely and solid instruction in actual bedside nursing care, it will be fatal to the popularity of the public health nurse if, in enthusiasm for preventive teaching, we lose sight of the unique approach to all types of homes possessed by the visiting nurse who accepts a fee for her service.

A good general education is necessary for the properly equipped public health nurse. One is encouraged to hope that the effort which was set in motion by the enormous demand for nurses brought about by the war and which found expression in the nurses' training camp at Vassar College, where more than four hundred young college women were entered to begin their nursing education last June, will interest many young women of good education to prepare for public health work. During the past year the urgent need for more specially educated public health nurses has brought about a considerable extension of the courses in public health nursing already established in various colleges. This extension has come about in some instances through gifts made by the Red Cross, both from local chapters and from the central organization itself. The Woman's Council of National Defense has, in some states, taken an active part in promoting the education of public health nurses. During the past year the Rockefeller Foundation made a grant to the National Organization for Public Health Nursing in order that educational work of this kind might be pushed as rapidly as possible.

Much of the necessary visiting for bedside nursing in community health work should be done by so-called attendants, who must be licensed as attendants. There is also another type of visit which might be paid by a health visitor who is not a nurse. These latter are visits such as must be paid to register the pregnant woman for prenatal visiting, to induce mothers to realize the importance of corrective treatment for the defects of their children, and to take patients to clinics and hospitals. Both types of visitors should be on a salary, and neither kind is practical without the supervision of a fully equipped public health nurse.

The more general the use of the less highly trained worker, the more important becomes the education of the public health nurse, for it is under her direction that successful co-ordination of community workers must come. When the war began, the United States Public Health Service had no public health nurses in its employ. Within a few months after our entry into the war, the Public Health Service had two hundred public health nurses at work in the extra cantonment zones.

Miss Mary E. Lent, on leave of absence from the National Organization for Public Health Nursing, is chief nurse for the Public Health Service, directing all public health nurses in the zones. The Red Cross, which is the recruiting agency for the Federal Public Health Nursing Service, has now taken the zone nurses upon its payroll. The work of the zone nurses is varied. Inoculation, following up of contacts, organizing a system of school nursing, teaching young wives of the army officers how to avoid the spread of measles or scarlet fever—these are some of the duties of the nurses who are engaged in trying to maintain "health at home to help the army."

The significance of their work lies chiefly in its future effect on the community. Once they are thoroughly understood, the public never relinquishes public health nursing activities, and, after the war is over, there will undoubtedly remain a permanent public health organization in many of the towns and cities included in the present extra cantonment zones. Red Cross Civilian Relief work in the families of soldiers is having a similar effect of education in the community.

* Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, Sept. 24-28, 1918.

The campaign to save the lives of 100,000 babies this year is well under way, and in this campaign the public health nurse is an indispensable factor. In one state, the aggregate sum of $60,000 has been gathered together since the campaign began. By far the greater part of this sum will be spent upon public health nurses.

An illustration of the way in which public health nursing has been co-ordinated and extended through the agencies brought into being by the war is that of one of our large cities, where each of *forty* different organizations has been for some time directing its public health nursing force individually. The Woman's Council of Defense for the state in which this city is situated was concerned in developing infant welfare work. The committee applied to the National Organization for Public Health Nursing for an experienced person to make a survey of the situation and to present recommendations for reorganization. The result has been the adoption of a plan which co-ordinates all public health nursing activities, placing the executive direction in the hands of the city health officer and securing the continued interest and support of the various boards by giving representation on a central committee to each. The city, which before had been only about half covered by public health nurses, now maintains a general service throughout all sections. A surprising development of this co-ordination is that the proposed budget for the work is very considerably smaller than was the original one.

A Red Cross health mission is now on its way to Italy. Miss Mary S. Gardner is in charge of the public health nursing section. It will be her hope to establish for the civil population of Italy a service of home visiting that will include both bedside nursing and health teaching. In her opinion, such a plan demands the specially educated public health nurse, for upon her intelligent discrimination will depend the successful use of health visitors who are not so fully trained.

At the moment of writing this paper, the public health nurses of this city are facing a situation as intimately related to the war as any nursing on the battle front. Influenza has attacked the city, entered the great shipping works, and has been carried back into every district of the town. With her bag in her hand, the public health nurse of these districts is traveling from house to house all day long, working with all her strength to prevent pneumonia and to teach the laws of health which will control the further extension of the epidemic. Had there been no public health nurses left at home to meet this emergency, it is difficult to imagine how this war nursing could have been done.

MEETING THE PROBLEM OF A REDUCED NURSING STAFF*

How to Secure the Best Results for Students in Nurse Schools Which Have Patriotically Increased Their Numbers Because of War Conditions

By MARY M. RIDDLE, Superintendent of Newton Hospital, Newton Lower Falls, Mass.

The war has caused many changes in the life-long habits of all grades of people. The old things have passed away, and from their death is springing up, even now, an entirely new order. Values are being readjusted. The important matters for consideration in the daily routine of living ten years ago have disappeared. They are dead and forgotten, and it is to be hoped their Gabriel will see to it that they are never resurrected. These changes have been in the physical as well as in the intellectual and moral sides of life—physical, as seen in the simpler forms of living, independent of food, fuel or other conservators; intellectual, as noted in the stand taken by colleges and all higher institutions of learning in their relation to the war, and methods of assisting in its prosecution; moral, as evidenced in the greater respect shown by men for other men in efforts to adjust differences.

In common with all other institutions, whether charitable or commercial, whether of learning or for manual training, civilian hospitals have felt from the beginning of America's part in the great world war that they have some very definite duties, not only to the sick within their walls, but also to the great world outside. True, the greater number of them had previously been alert and had heard and responded to the calls of the Red Cross for help in each belligerent country without regard to any thought save that of service. But when it became necessary not only to meet all the requirements of the present, but also to make some provision for the future, they immediately devoted themselves to consideration of plans for doing work upon an even larger scale.

Most of them in or near the great centers of population turned over at least a part of their buildings and equipment for the use of the army or navy, or both, as the case required. Besides giving their physical properties, they gave also of their best working forces—not only "man power," but "woman power" as well. It has been a common occurrence that hospitals have parted with their very best, and in many instances one might say, of their all, in order that the progress of the war might continue in the most satisfactory manner. Superintendents and heads of training schools have gone from the same hospital, and have taken with them the best of the working force that the institution could furnish. At the same time, boards of trustees and the few remaining officers of the hospital have planned, and carried into effect, arrangements for broadening the scope for its usefulness at home. It has all been commensurate with the degree of activity illustrated by the shipbuilding progress, and the construction in other departments of national work. True, it doesn't loom large, because these institutions have not had great moneys at their disposal; neither have they had financial aid from the state or national government; nor the names of great captains of industry or statesmen assisting or influencing their work; and doubtless when the history of the great world war is written, they will receive no mention. Yet for individual effort and unselfishness of purpose they will not be surpassed.

Among the results of their efforts may be mentioned construction of new buildings for the housing and care of more patients, and the increase of a nursing force capable of meeting the increased work. Patriotism and valor have influenced numberless institutions to go to the limit of their financial ability and their power for making good in all that they have undertaken. It has been no small task for the hospital schools of nursing to find profitable means of instruction for their increased numbers of pupils. The increase was made in order that there might be a larger final output of graduate nurses capable of meeting the demands in the foreign field caused by the war, which has already called from home duty among civilians a large percentage of the nurse population of the country. In making these increases in the nursing schools, it has never been the intention of the authorities of the schools to decrease, in any way, the efficiency of those to be graduated under such circumstances.

*Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, N. J., Sept. 24-28, 1918. The discussion on this paper was published in the report of the convention in our October, 1918, number.

It has never been the idea of such hospitals or schools that the nurses so trained should have less than the three year's course, because it has been believed that now, as never before, a thorough education in the art and science of nursing is required, and the impossibility of accomplishing this in a shortened period of training is perfectly realized.

The authorities reasoned that if, in the old days of peace and plenty, it required three full years to create a competent, well developed nurse, the same complete preparation is much more essential today, when the nation's dependence upon her skill and judgment is multiplied many times. Certainly the nation cannot afford to permit anything to retard the preparation for efficiency in the nurse, who, by her skill and faithful adherence to duty, may save the lives of its soldiers at the front, or of civilians in their homes.

According to the increase of the power of the destroyer, so also must be the increase of the opposing, preserving, saving power. It has not infrequently happened that these institutions have doubled the number of nurses in their schools, and that, having done so, their attention has next turned to a consideration of the best means for securing adequate opportunities for instruction or practical experience. In most institutions, the daily average number of patients has not enlarged in proportion to the increase in the number of workers, and therefore the wards of the hospital cannot be wholly depended upon to furnish that which is required.

There, are, however, many so-called *small* hospitals, remote from the great centers, that have hitherto relied upon the employment of graduate nurses for the nursing work of their hospitals. Having felt the shortage of graduates within the last year and a half, they have been sorely pressed to know how the required care may be given their patients, and have been encouraged to find the necessary aid in the enlarged schools, which are glad to loan or detail their pupils to these small hospitals. The cooperation thus established has truly been a blessing alike to the one who gives as well as to the one who receives. Too much credit cannot be given these small hospitals for the conscientious principles they have maintained in refusing to organize nurse schools, knowing their inability to render value received to the pupil for her services to them. For this benefit alone, conferred upon the world as well as upon the nursing profession, they ought to have their reward; and good nurses should feel upon themselves the incumbency of a duty to assist them whenever possible.

Besides these methods of solving the problem there are others, notably the advantages offered by the great public health work. Courses are offered by various colleges in public nursing, and they are almost boundless in their usefulness. True, they are somewhat expensive, but not exceedingly so, and the hospitals which have been sufficiently patriotic to enlarge their schools solely for the good of the nation and its war or disease-stricken men, will not be inclined to hesitate at the slight addition to their expense accounts by reason of this advantage given to their nurses, and indirectly to the very people whom they would help. It is reasonable to conclude that the public health nurse who gives her services to the soldier's family at home gives it to him and to his country. Districts which have been regularly under graduates as visiting nurses have relieved them for greater responsibilities and have taken instead nurses who have had the regularly prescribed course. Those are all material and immediate proofs of the value of the instruction in public health nursing and do not take into account the demand for such workers in the countries devastated by war.

Then, too, there are the hospitals for the treatment of mental diseases, some of which have difficulty in securing pupils for a nurse school. No greater developing process can be found for the nurse, and if the increased schools were to secure an affiliation with a hospital for the insane, two purposes might thereby be served; the mentally ill might have the benefit of an enthusiastic new element in their midst, and a most useful period of time might be spent by the nurse.

The curriculum of the school can be slightly altered to secure advantages which were not often given the nurses in the past, but which ought to be much prized in the present. Hospital housekeeping can be introduced under the guise of domestic science in a way to dignify the work and cause the nurse to have greater respect for it, to become more proficient in it, and to practice it with more zeal in the years to come, to the great comfort of those private families which employ her for their sick, as well as to her own advantage and the fair fame of the professional nurse of her period.

The dietetic laboratory could easily furnish additional opportunities for the nurse in training; the preparation of milk for babies, the preparation of food in general, and instruction in food values, as related to the human body as well as to their cost, could well have a more conspicuous place in the curriculum and could be given more time.

By the use of more ingenuity and thoughtful attention on the part of instructors, a greater amount of practical work can be done in the class room. A system for repetition in routine can be established there that will go far toward forming correct habits of work, and enabling the nurse to learn more quickly that to be truly proficient she must be able to perform her work automatically while she watches the condition of her sick patient, notices his needs, and ministers to them. Class rooms have never been fully utilized, and, as an instructor studies the problem she will find possibilities for the development of her pupils opening up and increasing on every hand.

* * * *

PROBLEMS OF SOUTHERN TRAINING SCHOOLS FOR NURSES

Lack of Uniformity in Standards for Accredited Training Schools Prevents University Affiliation—Appropriation for Support of Hospitals Too Limited to Provide Proper Instruction for Nurses

By E. MILDRED DAVIS, A.B., R.N., Dean of Training School for Nurses, Charity Hospital, Vicksburg, Miss.

The system of enrolling training schools for nurses as educational institutions has not been adopted by the boards of education or state universities of the South. There is no general cooperation between the superintendents of training schools for nurses and the principals of our secondary schools, and none can be established until more uniform standards for accredited training schools are observed.

A requirement for accredited schools of one state specifies that the training school must be connected with a general hospital of at least ten beds in capacity, with a daily average of five patients. It is difficult to imagine any hospital of ten beds being described as a general hospital. A small percentage of our Southern training schools admit only high school graduates, but the majority admit candidates with less education.

In a large percentage of the institutions which are

supported by state funds, the governor of the state appoints the board of trustees and the surgeon-in-charge. As the governor may not be reelected, these appointees are subject to removal from office after their respective terms expire. The superintendents of training schools connected with the above-mentioned institutions are often transient. One may remain for the entire administration of a surgeon-in-charge (four years), while others come and go too frequently for the welfare of student nurses.

Several of these hospitals have not provided a residence for nurses, dormitories or rooms in the institution being used for this purpose, and often, in cases in which a residence is provided, it is not equipped with a class room, demonstration room, laboratory, library, and diet kitchen. Comparatively few of our schools maintain a resident nurse instructor who has been trained in a teaching center; others do not employ a dietitian, but instead have a steward or housekeeper who is not qualified to instruct student nurses.

Neither teaching centers for the training of superintendents for hospitals nor schools for nurses and nurse instructors have been established in connection with the universities of the South. The George Peabody College for Teachers, Nashville, Tennessee, offers a course of eleven months for the field training and theoretical instruction of public health nurses. The proposition of establishing a department of nursing at the Sophie Newcomb College of New Orleans has been discussed. The Graduate Nurses' Association of Charleston, South Carolina, has sent a formal suggestion to the president and trustees of the College of Charleston that a department of nursing be established at that institution.

A City League of Nursing Education has been organized in New Orleans, and efforts have been made to establish a State League of Nursing Education for Louisiana, this to apply for affiliation with the national league. According to the report of the National League of Nursing Education for 1917, sixteen state leagues are affiliated, but the only Southern state recorded is Arkansas.

The appropriations for the support of our Southern hospitals are, in many instances, too limited to provide for the proper instruction of student nurses. This problem has usually been met by affiliation with other institutions capable of providing the required facilities or courses of instruction. The hospital laboratory may be used for demonstrations in chemistry, bacteriology, and materia medica. A local library can be resorted to for reference, and the librarian encouraged to order books for nurses. The domestic science teacher of a local high school may be engaged to instruct the student nurses in the absence of a dietitian. An up-to-date pharmacist is qualified to teach chemistry or materia medica. In the absence of a nurse instructor, the teaching of practical nursing procedures should be carefully supervised by the directress of nurses. The medical branches of nursing science, anatomy, obstetrics, bacteriology, may be taught by resident physicians. Every institution conducting a training school should affiliate with other institutions for any branch of nursing service not represented, for only well-trained nurses can creditably represent our profession.

At their annual meeting, held in Rochester December 3, 4, and 5, the New York Nurses' Association and the League for Nursing Education went on record as advocates of the eight-hour system in nurse training schools. They are particularly opposed to twelve-hour night duty for pupil nurses, believing it to be a menace to health and a relic of conditions which should have been bettered years ago.

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Committees Appointed

The president of the association has appointed the following committees:

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Daniel D. Test, superintendent Pennsylvania Hospital, Philadelphia.
Dr. A. R. Warner, superintendent Lakeside Hospital, Cleveland, O.
Dr. A. B. Ancker, superintendent City and County Hospital, St. Paul, Minn.
Dr. B. F. McGrath, professor of the principles of surgery, Marquette University, secretary-treasurer Catholic Hospital Association of the United States and Canada, Milwaukee, Wis.
Howell Wright, Secretary.

COMMITTEE ON OUT-PATIENT WORK

Michael M. Davis, Jr., chairman, Boston Free Dispensary, Boston.
Term expires convention, 1919.
Dr. R. B. Armstrong, Health Demonstration Committee, Framington, Mass.
Term expires convention, 1920.
Dr. Robert J. Wilson, Department of Health, New York City.
Term expires convention, 1921.

COMMITTEE ON LEGISLATION

Pliny O. Clark, chairman, superintendent Ohio Valley General Hospital, Wheeling, W. Va.
Dr. Charles H. Young, superintendent Presbyterian Hospital, New York City.
Dr. Louis H. Burlingham, superintendent Barnes Hospital, St. Louis, Mo.
Howell Wright, Secretary.

MEMBERSHIP COMMITTEE

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H. E. Webster, superintendent Royal Victoria Hospital, Montreal, Canada.
Rev. Maurice F. Griffin, St. Elizabeth's Hospital, Youngstown, Ohio.

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Maj. A. K. Haywood, superintendent Montreal General Hospital, Montreal, Quebec.
Miss K. M. Prindiville, superintendent Joseph Lawrence Free Public Hospital, New London, Conn.

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Maj. Richard P. Borden, chairman, Union Hospital, Fall River, Mass.
Dr. T. Malcolm MacEachern, general superintendent Vancouver General Hospital, Vancouver, B. C.
Dr. Thomas D. Howell, superintendent New York Hospital, New York City.

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Dr. Stewart Hamilton, chairman, superintendent Harper Hospital, Detroit, Mich.
R. G. Broderick, superintendent San Francisco Hospital, San Francisco, Cal.

Dr. H. Phillip Hill, superintendent Robert D. Green Memorial Hospital, San Antonio, Texas.

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Dr. W. G. Nealley, superintendent Brooklyn Hospital, Brooklyn, N. Y.
Howell Wright, executive secretary.

COMMITTEE ON NOMINATIONS

Dr. Lewis A. Sexton, chairman, superintendent Hartford Hospital, Hartford, Conn.
Dr. Ralph B. Seem, assistant superintendent Johns Hopkins Hospital, Baltimore, Md.
Miss Lydia H. Keller, R.N., secretary, Minneapolis State Hospital Ass'n, St. Paul, Minn.

Officers of Sections of the American Hospital Association

The following officers were elected by the sections of the association at the twentieth annual convention at Atlantic City, N. J. In co-operation with these officers and others, the president and executive secretary of the association will shortly, in accordance with the provisions of the constitution, make plans for the program of papers and discussion of the 1919 convention.

SECTION ON DIETETICS (AMERICAN DIETETIC ASSOCIATION)

Miss Lulu Graves, president and chairman, Home Economics Building, Cornell University, Ithaca, N. Y.
Miss E. M. Geraghty, secretary, New Haven Hospital, New Haven, Conn.

SECTION ON HOSPITAL ADMINISTRATION

Dr. Louis H. Burlingham, chairman, superintendent Barnes Hospital, St. Louis, Mo.
Dr. Ralph B. Seem, secretary, assistant superintendent Johns Hopkins Hospital, Baltimore, Md.

SECTION ON HOSPITAL CONSTRUCTION

Dr. George O'Hanlon, chairman, superintendent Bellevue Hospital, New York City.
Oliver H. Bartine, secretary, Member of Hospital Committee, New York State Charities Aid Association, New York City.

SECTION ON NURSING

Miss Georgia M. Nevins, chairman, American Red Cross, Washington, D. C.

SECTION ON OUT-PATIENT WORK

Michael M. Davis, Jr., chairman, Director Boston Free Dispensary, Boston, Mass.
Clarence E. Ford, secretary, superintendent of Medical Institutions of New York Board of Charities, New York City.

SECTION ON SOCIAL SERVICE

John E. Ransom, chairman, Central Free Dispensary, Chicago.
Miss Gertrude Farmer, secretary, Boston City Hospital, Boston.

1919 Convention

Considerable progress has been made in the plans for the 1919 convention. The dates of the convention will be September 29 and 30, and October 1, 2, and 3, 1919.

Convention headquarters will be the Hotel Gibson.

GENERAL AND EXECUTIVE COMMITTEE ON LOCAL ARRANGEMENTS

Upon recommendation of the Cincinnati people, the president has appointed both a general and an executive local committee on arrangements, the general committee consisting of nearly one hundred people as a representative Cincinnati committee. Its very make-up is indicative of the interest manifest in the twenty-first annual convention of this association.

The executive committee, of which both the president and executive secretary of the association are members *ex officio*, will be the active committee and will have in charge all local matters pertaining to the convention. The chairman of both the general and executive committee is Maj. C. R. Holmes, the builder and guiding genius of the famous Cincinnati General Hospital. The secretary of both committees is Mr. Thomas Quinlan, manager of the convention and publicity department of the Cincinnati Chamber of Commerce. The office of the executive committee will be in the Cincinnati Chamber of Commerce. The membership of the general committee is as follows:

SUGGESTED MEMBERS OF CINCINNATI GENERAL COMMITTEE, AMERICAN HOSPITAL ASSOCIATION, 1919 CONVENTION

Maj. C. R. Holmes, General Chairman.
Walter J. Friedlander, Vice Chairman, president Hisey-Wolf Machine Co.
Honorable John Galvin, mayor of Cincinnati.
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Rev. A. G. Lohman, superintendent Deaconess Hospital.
Dr. Walter E. List, acting superintendent Cincinnati General Hospital.
Laura R. Logan, superintendent of nursing, General Hospital.
M. M. Russell, superintendent Jewish Hospital.
Alice Thatcher, superintendent Christ Hospital.
Louise Golder, superintendent Bethesda Hospital.
Rev. Christ Golder, superintendent Scarlet Oaks Sanatorium.
Sister Victoria, superintendent Good Samaritan Hospital.
Sister F. Jerome, superintendent Seton Hospital.
Mary M. Roberts, superintendent C. R. Holmes Hospital.
Sister M. Alacoque, superintendent St. Mary's Hospital.
Dr. F. W. Langdon, superintendent College Hill Sanatorium.
Sister Apollinaris, superintendent St. Francis Hospital.
Lillian C. MacAdams, superintendent Episcopal Hospital for Children.
Dr. Earl A. Martin, acting superintendent Cincinnati Tuberculosis Hospital.
Anna Kypke, superintendent Ophthalmic Hospital.
Dr. Chas. S. Rockhill, medical director Rockhill Sanatorium.
Dr. Robert Sattler, Ophthalmic Free Dispensary.
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Brent Arnold, Louisville & Nashville R. R. Co.
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John E. Bruce, Bruce & Bruce, 18 Masonic Temple.
John J. Burchenal, general manager Procter & Gamble Co., Gwynne Bldg.
Casper H. Burton, Reading Road & Burton Ave.
W. Y. Cartwright, vice president Union Gas & Electric Co.
Alf. C. Cassatt & Cottle, 1612 1st Nat'l.
Albert H. Chatfield, president Chatfield & Woods Co., 3rd & Plum.
Chas. J. Christie, The Fleischmann Co., 419 Plum St.
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Geo. D. Crabbs, Philip Carey Mfg. Co., Lockland.
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Reuben A. Holden, 18 E. Fourth St.
Howard C. Hollister, judge U. S. District Court, 320 U. S. Custom House.
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Lawrence Maxwell, Jr., Maxwell & Ramsey, 2208 Union Central Bldg.
D. B. Meacham, Rogers, Brown & Co., 73 Carew Bldg.
Wm. B. Melish, president Bromwell Brush & Wire Goods Co., 612 W. Sixth St.
Arthur R. Morgan, vice-president U. S. Printing & Lithographing Co.
E. H. Murdock, president Queen City Printing Ink Co., 1913 South St.
J. P. Orr, president Potter Shoe Co., 18 W. Fifth St.
Miller Outcalt, Attorney-at-Law, Telephone Bldg.
Elliott Pendleton, Attorney-at-Law, 306 Lincoln Inn Court.
Maurice E. Pollak, vice-president Pollak Steel Co.
Robt. W. Pogue, H. & S. Pogue Co.
T. C. Powell, vice-president C. N. O. & T. P. Ry. Co., Ingalls Bldg.
A. Prince, president L. M. Prince Co., W. Fourth St.
Sidney E. Pritz, The Strauss-Pritz Co., 909 Sycamore.
Wm. Cooper Procter, The Procter & Gamble Co., Gwynne Bldg.
George Puchta, president Queen City Supply Co.
Joseph Rawson, vice-president First National Bank.
Ralph F. Rogan, The Procter & Gamble Co.
Casper H. Rowe, president Market National Bank.
W. S. Rowe, president First National Bank.
Jacob G. Schmidlapp, The Union Savings Bank & Trust Co.
W. Kesley Schoepf, president Cincinnati Traction Co.
Edward Senior, president Senior Powder Co., Mitchell Bldg.
Stewart Shillito, president John Shillito Co.
A. Clifford Shinkle, president Central Trust Co.
Murray Shipley, vice-president The Trailmobile Co., 538 E. 5th.
Rufus B. Smith, 1602 First Nat'l Bank Bldg.
Bellamy Storer, 115 E. Fourth St.
Charles P. Taft, president Cincinnati Times Star.
Peter G. Thompson, Paper Mfg., Oakwood & Belmont Ave., C. H.
M. F. Westheimer, president The Susquemac Distilling Co.
Charles Wiedemann, president The Geo. Wiedemann Brewing Co., Newport, Ky.
W. F. Wiley, Cincinnati Enquirer.
Harry F. Woods, vice-president The Chatfield & Woods Co.
H. A. Worcester, District Director, U. S. R. R. Administration, 718 Union Central Bldg.
David J. Workum, 1103 First Nat'l Bank Bldg.
William Worthington, 44 Wiggins Block.
Clifford B. Wright, president Union Savings Bank & Trust Co.
Henry G. Yeiser, president Globe-Wernicke Co.

The membership of the executive committee on local arrangements is as follows:

Maj. C. R. Holmes, chairman.
Rev. A. G. Lohmann, vice-chairman, superintendent Deaconess Hospital, Cincinnati.
Dr. Walter E. List, superintendent Cincinnati General Hospital.
Mr. Walter J. Friedlander, president Heisy-Wolf Machine Company.
Mr. Robert Crane, R. G. Dunn Company.
Mr. Thomas Quinlan, secretary, Cincinnati Chamber of Commerce.

Hospital Telephone Service Under Federal Control

Hospital telephone service, including rates and charges and discounts, is being made the object of inquiry by the secretary's office. Mr. Cornelius S. Loder, who has made some preliminary protests to the postmaster general in behalf of individual hospitals, has referred the matter to the office and urged immediate action on the part of the association. There is no standardization of charges to the hospitals by the various telephone companies including special discounts for cost of service. Such should be possible under Federal control.

In a communication to the association, Mr. Loder urges that not only should discounts be made to hospitals on certain classes of service, but the same charges should be made hospitals as is made to industries where new or additional equipment is required. Under private telephone management charges for installation of service were seldom made. Such charges are now made under government control, but it is urged that hospitals should not be obliged to meet these charges. Lack of uniformity in hospital telephone contracts is also called to our attention. For example, in New York and New Jersey, discount on the entire telephone contract is 25 per cent, including all calls excepting toll and extra local calls. In most of Connecticut the discount is 20 per cent on the cost of one trunk line only. In some places there is no discount, while in others it is said the discount is considerably more.

In a letter under date of November 9, Mr. W. H. Lamar, solicitor in the post office department, informed Mr. Loder as follows: "The Postmaster General has appointed a committee to investigate and report upon the matter of standardization of telephone rates throughout the United States. When the report is received it may be that the matter of discounts to hospitals will be taken up."

This communication emphasizes the importance of securing adequate information to be presented to the post office department for consideration. A communication on this subject is being prepared and will be sent to the various hospitals as soon as possible. In the meantime, the secretary would be glad to hear from any of the hospitals relative to their increased cost of telephone service under Federal management, what discounts they receive on their entire telephone contract, and what charges are made for installation of service and charges for equipment. Communication on this subject should be sent to the secretary at 308 Anisfield Building, Cleveland.

Hearings Before Health Insurance Commissions

The health commissions of Connecticut, Illinois and Ohio have held public hearings at different intervals during the past few weeks. Reports of some of these hearings, as well as legislative proposals by health insurance commissions, will be included from time to time in the Bulletin of the association.

THE OHIO COMMISSION HEARINGS

Sickness prevention was the keynote of the hearings. While it was recognized by many present that health insurance seems to be inevitable, representatives of the employer and of labor, the medical profession, hospitals, and various public health organizations expressed a lively interest in proposals to increase the public health activities of the state and local government. It is very likely that the next Ohio general assembly will have to consider legislative proposals to increase appropriations to the state department of health for disease prevention work, for the organization of a state-wide system of medical inspection of the public schools, and to reorganize the county health departments. Proposals for old age pensions were also discussed.

The importance of medical and hospital care as a part of any sickness or health insurance proposal was emphasized—not the limited care that it now occasionally provided under some of our workmen's compensation laws, but complete medical and hospital care to the extent of rehabilitation of the injured or sick individual as far as possible. It was also emphasized that it is now easy for the very wealthy and the very poor to secure the best medical and hospital attention, but very difficult for the self-respecting person of the middle class who is unable to pay for private room and skilled specialists, etc., but at the same time is unwilling to accept charity.

The commission was urged to give consideration to this group in any proposals of sickness or health insurance. The medical and hospital facilities in Ohio are inadequate to meet even the present demand.

Of special interest to hospitals is the emphasis which was laid upon recognition of the principle of hospital cost for hospital service rendered. Recognition of this principle by the commission was urged as a matter of justice to both the sick and those who provide care for the sick.

Institutional Membership

Applications for institutional membership in the association have been received from the following institutions:

St. Louis Maternity Hospital, St. Louis, Mo.
Hospital of Deformities and Joint Diseases, New York City.
City Hospital of Akron, Akron, Ohio.
Physicians' and Surgeons' Hospital, Corsicona, Texas.
St. Francis Hospital, Pittsburgh, Pa.
Lakeside Hospital, Cleveland, Ohio.
Vincent Memorial Hospital, Boston, Mass.
Baird-Dulaney Hospital, Dyersburg, Tenn.
Milwaukee Infants Hospital, Milwaukee, Wis.
West Ellis Hospital, Chattanooga, Tenn.
West Side Hospital, Chicago.
Englewood Hospital Ass'n, Chicago.
Newell & Newell Sanitarium, Chattanooga, Tenn.

Application blank will be found on page 72 of the advertising section of this number.

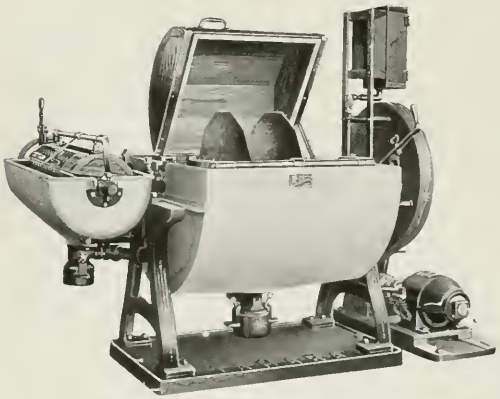
NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.

Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast Avenue, Oak Park, Illinois.

Automatic Silver-Burnishing Machine

The machine is known as the Tahara automatic silver-burnisher. The manufacturers guarantee that it will restore the silverware to the original luster and finish which it possessed when it first came from the shop. This new appearance is said to be obtained with no injurious effects to the silverware, as the apparatus does not remove the most delicate silver-plating, but on the contrary has the effect of hardening and preserving it. The actual burnishing is accomplished by means of a quantity of small highly finished steel balls and pins, which by continuous rolling over the surface of the plate do the work. The principle is not fundamentally new, as silversmiths have for many years used steel burnishing tools in finishing the finest silverware, because of the high polish secured, and because of the hardening effect upon the plating, and in designing the Tahara silver



Tahara automatic silver-burnishing machine.

burnishing machine the inventor had in mind the same principle. Each polished ball or pin is a miniature burnisher, and the pressure which the silversmith would apply to a hand tool is obtained in the machine by the aggregate weight of the entire mass of balls and pins.

The apparatus is made in several sizes and types, such as for the purpose of burnishing flatware only, as well as in combination form for flat and hollow-ware.

High Vacuum Pumps

The Cenco-Nelson pump illustrated here represents the most recent development in high vacuum pumps for laboratory and commercial purposes. It is compact, operates with very little expenditure of power, and requires no attention when in operation; in fact, it is very carefully constructed and consequently should last indefinitely. It is about seven inches high by five inches in diameter at the base and weighs approximately ten pounds. The pulley is grooved for one-fourth-inch belt.

These pumps consist essentially of rotating gears in pairs, running in accurately fitting housings. The whole mechanism is immersed in a cistern of oil, which serves the double purpose of sealing all the joints air-tight, and of lubricating the moving parts. The pumps are made with either two or three pairs of gears and are known as the two-stage and three-stage pumps, respectively.

The two-stage pump contains two pairs of gears, arranged one above the other. The upper pair takes the air from the inlet tube and delivers it to the lower pair, which forces it out through the exhaust. The three-stage pump contains three pairs of gears arranged in the same way, and is capable of producing a higher vacuum than the two-stage outfit.

The Cenco-Nelson pump.

When operating for any length of time these pumps will become warm, and, as this raises the vapor tension of the oil, the heat is objectionable when a high vacuum is desired. To offset this effect, a cooling system is provided on the three-stage pump, by means of which the oil is kept cool by circulation of water.

For driving these pumps a constant speed type of motor is most satisfactory; if for D. C., a shunt wound motor, or if for A. C., an induction motor. A one-eighth horse power gives sufficient power.

Under favorable conditions, a vacuum of 0.1 mm. may be obtained with the two-stage pump. With the three-stage water-cooled pump, a vacuum of 0.05 mm. may be obtained by using proper precautions.

The displacement of these pumps in free air, according to tests in the laboratory of the manufacturers is approximately 285 cubic inches per minute, or 10 cubic feet per hour, at a speed of 900 revolutions and they will evacuate a flask of one liter capacity to a vacuum of 1 mm. in two minutes.

Bandage-Folding Machine

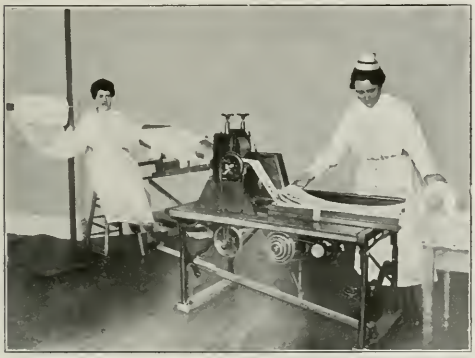
A new apparatus for the purpose of folding gauze bandages has been devised recently by Mr. G. F. Willett of the Industrial Service & Equipment Co., of Boston, for the New England Surgical Dressing Committee.

The inventor informs us that this machine will fold

gauze for bandages in any desired width up to six inches. In order to produce the desired width, all that is necessary is to change the folder, which can be accomplished in a few moments time.

The machine in its simplest form consists of a rack which supports the roll of gauze, the folders which are mounted on a board, the presser rolls driven by electric motor, as well as a reel for the purpose of winding the gauze into rolls. The entire apparatus, with the exception of the rack, is mounted on a wooden top table, and is gotten up similar to a sewing machine, except that it takes more space and is a little heavier.

The speed of the machine depends entirely on the skill of the operator, but the average accomplishment is about

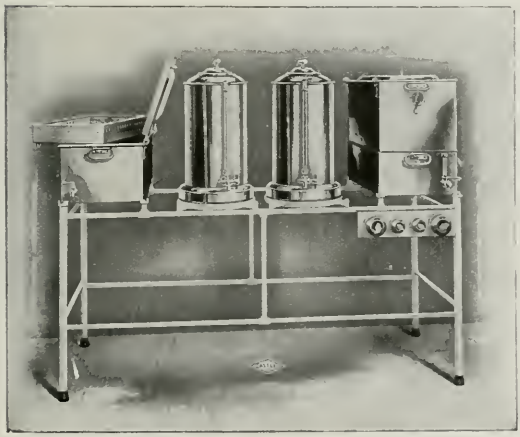


Electrically driven bandage-folding machine.

50 yards per minute, and the bandages are more uniformly folded and pressed than when the work is done by hand. Owing to the increasing shortage of labor, it may be to the advantage of hospital administrators to investigate this device further.

Sterilizing Equipment for Small Hospitals

The sterilizing plant illustrated here is made by the Wilmot Castle Company, of Rochester, N. Y., and is one which is well suited for the small hospital which is not equipped with a steam plant, or which has not the means of purchasing one of the more expensive high-pressure steam sterilizing plants.



Castle sterilizing plant for small hospitals; electrically heated.

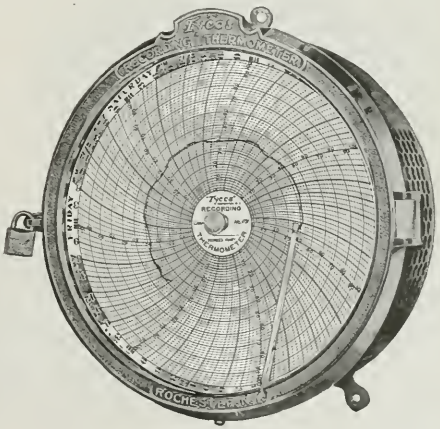
The instrument boiler is of a size that gives adequate facilities for sterilizing all instruments, dressings, bandages and gowns by live steam, which is forced through them in such a way as to insure complete penetration. Hot air heats and drys the dressing before and after sterilization, but no products of combustion can ever enter the sterilizing chamber. A single valve controls both steam and hot air.

The instrument and dressing sterilizers are furnished with trays for handling contents. The water sterilizers are equipped with protected water gauges and three-way draw-off faucets. They are of heavy cold-rolled copper; exteriorly nickel-plated and polished, and interiorly coated with pure tin. The stand is made of tubular steel, finished in white enamel. The dressing sterilizer is 22 by 10 by 10; the instrument sterilizer is 24 by 12 by 7 and the water sterilizers have a capacity of 5 gallons each. The floor space occupied by this outfit is 54 by 25½ inches.

The apparatus is illustrated with electrical heating units. These units are no longer an experiment, but have been brought up to a 100 percent efficiency. The apparatus can also be furnished equipped with gas or gasoline burners.

Tycos Self-Contained Recording Thermometer

This instrument automatically writes down in ink on a revolving paper chart a continuous record of temperature of the atmosphere surrounding it. These chart-records furnish valuable information to the superintendent or chief engineer, since by observation of these charts at



Tycos self-contained recording thermometer.

any subsequent time, he can tell whether or not the temperature has been maintained within the proper limits, and if not, he can easily place the responsibility.

These recorders are especially valuable for checking the temperature carried at night, because there is a tendency for employes not to allow the temperature to fall to the minimum point during this period, when the heat is only wasted and when fuel can be saved; in fact, tests made in some buildings show that temperatures as high as 90 F. have been maintained at night, when 45 F. would have been amply high.

The sensitive member of this recording thermometer consists of a liquid-filled coil located inside the case, which is perforated to allow free circulation of air. As the temperature of the surrounding air fluctuates, the liquid expands or contracts, thus opening or closing the coil. The motion of the coil is transmitted to the pen which moves radially over the revolving paper chart, the latter being carried on the arbor of a clock movement. It will thus be apparent that every fluctuation of temperature occurring at the coil is instantly recorded on the chart.

This apparatus is tamper-proof, in that the sensitive coil is inside the case, and this, in turn, is under lock and key, so that the records cannot be tampered with.

New Improvement in Blood-Pressure Gauges

Figure 1 shows in detail the construction of a new type of sphygmomanometer which is a radical departure from the watch pattern instruments and in which the manufacturer claims to have forever eliminated the necessity of tolerating the infirmities of other types of blood-pressure apparatus. The instrument is of extremely simple construction, of the indicating type and very sensitive even to a small fraction of a millimeter of mercury. It contains absolutely no gears or springs of any kind. From the illustration it will be seen that the gauge is of quadrant type of construction, an entirely novel design for sphygmomanometers.

The manufacturer states that one of the most essential features which will make the Tag-Roesch sphygmomanometer superior to others is the fact that the entire instrument is built of a rust proof metal, which will not be affected either in a damp or tropical climate.

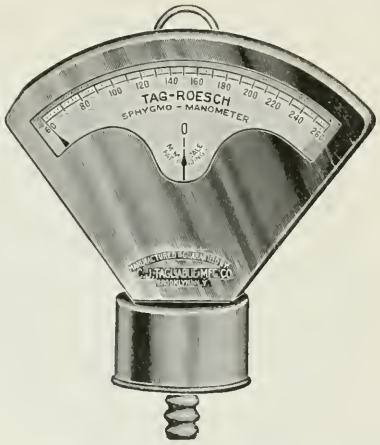


Fig. 1. Tag-Roesch sphygmomanometer.

The mechanism of the apparatus works in the following manner: As the bellows (9) expand under inflation, an upward pressure is immediately exerted upon the link (41), which is communicated to the member (38) and causes the zero hand (35) to swing away from the designation (36) toward the left in the illustrated example. The expansion of the bellows (9) also causes the pivot (27) to concurrently move upward in the slot (26) of the link (24) without, however, affecting said link. If the expansive movement of the bellows is sufficient to bring the pivot (27) to the upper end of the slot and continues beyond this point, that is, if the exerted pressure is greater than 60 mm. of mercury, said pivot (27) will exert an upward pressure upon the link (24). This pressure will be communicated to the member (21), which being in rigid connection with the indicating hand (16) will thus cause the latter to swing along the scale (31) toward the right. As the pressure in the bellows (9) fluctuates, the hand (16) will move correspondingly backward and forward along the scale (31), thus indicating the pressure of the blood and the pulsations. The movements of the hand (16) from any position on the scale between 60 and

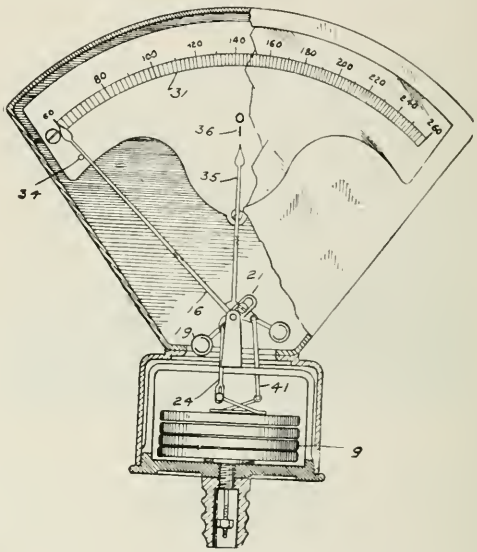


Fig. 2. Illustrating in detail the construction of the Tag-Roesch sphygmomanometer.

260 mm. toward the left is caused by the action of the counter-weight (19). In other words, said counter-weight causes the link (24) to follow any downward movement of the pivot (27), due to a contraction of the bellows. This operation continues until the pressure becomes less than 60 mm. of mercury, whereupon the hand (16) is again supported by the stud 34) while the pivot (27) moves down in the slot (26) and relatively to the link (24) as the bellows continue to move towards its normal position. As the bellows contract the zero or correction hand (35) will swing back toward the designation (36) and, as long as the instrument is in correct working order, will register with this designation when the bellows has reached its normal position. Should the bellows ever become stretched or over expanded from continuous use, the hand (35) will show this by not coming back to the designation (36) in the final position of said bellows. If this should happen, it will still be possible to obtain an accurate reading with this instrument, as it would be only necessary to take into consideration the extent of error indicated by the hand (35) on the scale (31).

Explanations are wasted time. A man who can see, understands a touch; a man who cannot, misunderstands an oration.—Ruskin.

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

Vol. XII *February, 1919* No. 2

HOSPITAL CONSTRUCTION AT THE UNITED STATES NAVAL HOSPITAL, NEW YORK

Plenty of Light and Air Distinguish the Hospital Structures Built in Brooklyn to Care for the Enormously Increased Numbers of Men—Government Care Extends Through Convalescence Involving New Feeding Problems Which a Cafeteria System Solved

By GEORGE A. LUNG, Captain, Medical Corps, United States Navy

THE facilities at the United States Naval Hospital, New York (Brooklyn), were found inadequate to take care of the increased number of patients brought about by the increased personnel of a larger navy and the influx of patients from the war zone. Preparations were therefore necessarily made for additional structures. To set forth a comparative display of the number of patients cared for in the U. S. Naval Hospital, Brooklyn, N. Y., the following figures may be of interest.

Fig. 1. Hospital wings, building D., United States Naval Hospital, Brooklyn.

Number of patients cared for in 1916... 1,604
Number of patients cared for in 1917..... 5,913
Number of patients cared for from the beginning of the war, April 1, 1917, to November 14, 1918....28,826

The design for the new building was planned by Mr. Grant LaFarge, consulting architect, New York. The general arrangement of the buildings was in the form of a letter M with three wings of two floors each and facilities for the care and treatment of approximately five hundred patients. Of prime importance was the consideration that the building space was abundant, as contrasted with civilian hospitals in this neighborhood. Plenty of natural light and ventilation were readily afforded, inasmuch as the conservation of space was not of prime import. The specifications called for ample space and sun porches, as well as special conveyances for transportation from floor to floor. Arrangements were made for proper isolation rooms and noise-proof rooms for the care of delirious medical cases and such mental cases as may temporarily come under the hospital's care. Arrangements were made for special diet kitchens and preparations made for linen storage and large sized offices for nurses.

Another feature of great importance presented itself for consideration, namely, that the patients at the naval hospitals remain in these institutions from the onset of their illness until they are fully recovered and able to return to their usual vocations. The government is considered to be in a

paternal position, handling patients as members of one great family. As far as is practicable, provision has to be made for the care and feeding of walking patients as well as for the patients who are in bed. With this in view, a complete cafeteria system was installed in the main mess hall so that each man waits on himself and has the opportunity to get food just as it is served, thus saving the great amount of labor that would be required in serving. This system works so well that between four and five hundred patients can be served within an hour and a half.

The general dimensions of the main building are as follows: 163 by 29 feet, with three ward wings, 29 by 150 feet, and varying in height from 25 to 43 feet; also two wings 29 by 20 feet and 55 feet in length and 45 and 36 feet in height, respectively. The mess hall wing is 43 by 57 feet

Fig. 2. Cleaning up in the lavatory of building D.

by 36 feet in height, with solariums on the south end. The building is composed of brick piers and terra cotta curtain walls. Partitions on the inside of the building are composed of gypsum and terra cotta blocks. This building is covered by a wooden roof composed of trusses of long leaf pine (yellow) sheathed with a 7/8-inch by 6-inch pine, formed into hips and ridges for drainage and covered by 5-ply tarred felt and slag.

The footings, foundation walls, pipe galleries, floor constructions, and the roof over the dining room wing are composed of reinforced concrete T beams, with the spaces between the stems filled with terra cotta blocks. The stairs are built of reinforced concrete and finished with slate threads. The doors to the elevator shaft, all doors opening on the roof, and dumbwaiter doors are kalamein or fireproof.

Portland cement stucco was used on all exterior wall surfaces, including the tent house and the ceiling of the driveway and solariums; waterproof cement was used in the kitchen floors, bathrooms, pantries, diet kitchens and sterilizing rooms; patent plaster was put on all other walls and ceilings.

Fig. 3. This shining, up-to-date kitchen is the galley of building D of the naval hospital at Brooklyn.

The window frames and sashes are made of thoroughly seasoned clear white pine. The sashes are arranged in tiers, and pivot at the sides near the bottom without transom bars. The meeting rails are rebutted for weathering and so arranged that any sash can be operated independently of the others.

All hardware, except that on the windows, is solid cast bronze and polished. All windows are

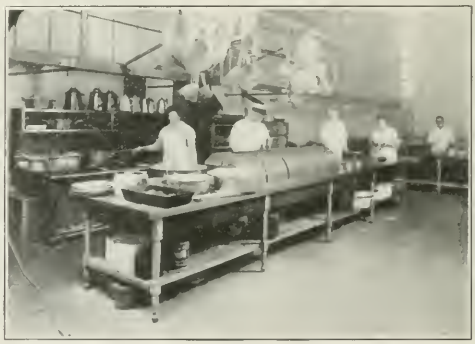


Fig. 4. Chow time for the convalescents in the cafeteria of building D.

glazed with double strength Grade A. There are tile floors and bases in bathrooms, diet kitchens, and utility closets. In all other rooms, cement bases are used. The floors are covered with linoleum, except in the center wing, where magnesite has been used. The walls and ceilings are painted navy buff, and all interior woodwork is enameled.

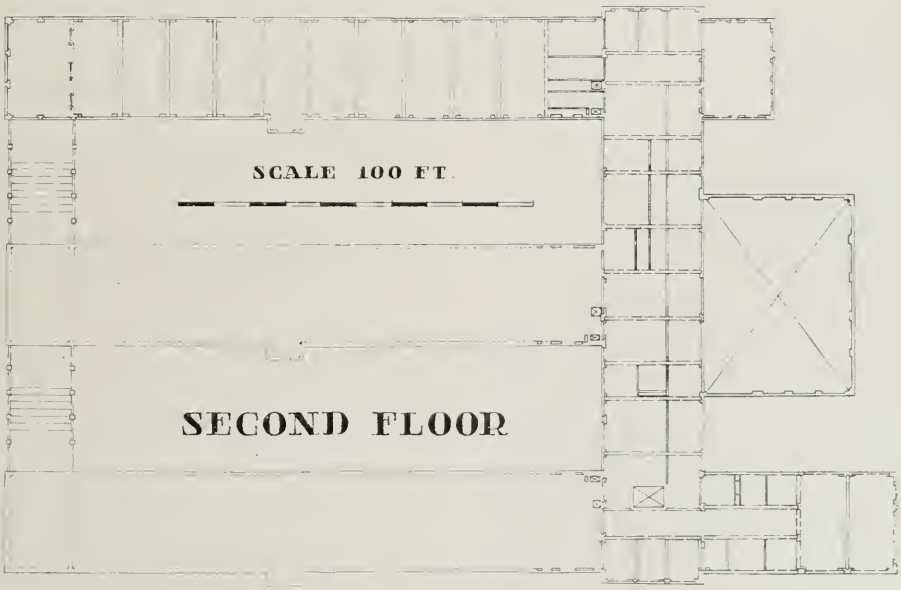


Fig. 5. Floor plans of the United States Naval Hospital at Brooklyn.

The elevator equipment consists of one electric passenger elevator of the winding drum type, having side guide construction, with a lifting capacity of 2600 pounds at a normal car speed of 100 feet per minute. This serves a total of three floors and four landings.

The dumb-waiter equipment consists of five hand-power dumb-waiters, three to travel about 26 feet and two about 17 feet. Each shaft has a capacity to lift 100 pounds easily.

The kitchen equipment of this building consists of ranges, ovens, broilers, vegetable steamer, steam kettles, work tables, coffee urns, ice-cream freezer, vegetable peeler, meat block and bench, meat slicer, meat chopper, bread-mixing machine, and dish-washing machine.

A complete refrigerating plant has been installed of the ammonia compression type, which cools the various refrigerators by the brine circulation and makes five tons of raw filtered ice per twenty-four hours.

There is a local fire alarm signaling system connected with all buildings on the premises and operating as one complete system.

All plumbing, gas and brine coils, stand pipes, hose racks, hose, and other fixtures have been furnished according to standard navy specifications. The steam-heating system is of the low-pressure type, and there is also a system of steam service for fixtures in the large kitchens, the special diet kitchens, and utility rooms, and all other rooms where fixtures requiring live steam connections are to be used.

An apparatus has been provided for furnishing a tempered-air supply ventilation to the wards by means of a centrifugal blower fan located in the roof space in connection with air filters and a tempered stack to cleanse and warm the air properly. The exhaust ventilation of the kitchen, diet kitchens, toilets, pantries, scullery, utility rooms, and mop closets is accomplished by means of a propeller fan, which is also located in the roof space and which discharges the exhaust air above the roof.

MENDING BEFORE CONDEMNATION AND REPLENISHING OF SUPPLIES

Careful Study Reveals Opportunities for Conservation—System of Condemnation and Replenishing Requires Each Article to Be Passed on by Housekeeper Before Being Discarded—Training Employees to Cooperate in Keeping Supplies in Good Condition

By LINA STRYKER FISH, General Housekeeper, Municipal Tuberculosis Sanitarium, Chicago

WITH the ending of the great conflict and things getting back to normal we are looking forward to old-time conditions as far as prices are concerned. Of the many lessons which this war with all its attending problems has brought, it is hoped that one of the greatest has been learned and will be retained—that of getting the most and best for the money—and after getting it, putting it to the most efficient use by keeping it in the very best condition and using up all odds and ends.

To illustrate what may be accomplished along this line, I will tell you a few things we have done at the Municipal Tuberculosis Sanitarium. In the sewing room, where orders come in for different equipment, we make a study to find out whether the article would be just as serviceable if made from a cheaper muslin, from muslin instead of Indian Head, or, perhaps, from unbleached muslin. Where we have been making laboratory coats of twilled material, we find that a heavy unbleached muslin, after a few washings, is perfectly satisfactory.

We were buying knee-pads for scrubbing, or getting jeans and padding with cotton and making them ourselves. The prices soared so that we are now using the "war flour" bags for the outside and stuffing with the remnants of old spreads that could no longer be of service, not even by being cut down for nursery cribs or bassinettes. We have used the best of our condemned sheets for the smaller beds. We utilize all flour sacks for dish towels. The "to be" dish towels are hemmed and marked to prevent their being torn up and used as rags. The outer sack of the sugar sack is used for scrubbing cloths, and the inner and thinner sack for dust cloths. The duck laundry bags that are condemned even beyond utilization for patching others we finish as scrub cloths.

One of the greatest economies in a hospital or institution is an intelligent system of condemnation and replacement, and this naturally includes the matter of mending. The plan we have found best is to have a certain day and time to give to condemnation, with a designated place. Each employee, including the laundrymen, sees to it that everything he considers past service is at this place, after which it is passed upon by the housekeeper. If the usefulness of an article is ended, it is recorded for future replenishing and

destroyed, but under no consideration is a new article given out until the old is either returned or satisfactory explanation given about it. This holds good for every article in service, from scrub-bush and mop to bedding and table linen.

The natural place to discover what needs mending is at the mangle, in the laundry. It is here that the folders for mangle can lay aside everything that is ripped in hem or seam, or torn by wear or accident, and send it to the mending room for repair or later condemnation. If the mender considers it past her ministration it is thrown aside for inspection on condemnation day, when its fate is finally sealed. The face or bath towel may be composed of two or three sections, but all its seams are for a worthy cause; parts of a bath towel too small for fitting in for a patched towel, may blossom forth as wash cloths. The remnants that can not be mended or made over make rags for window washing, brass polishing, and "general washing up" cloths, where scrub cloths are too heavy.

The sewing machines that can be adjusted for mending are the best and quickest. This process enables a rent in table cloth or napkin, or any other break, to be simply filled up unless its size requires a patch. The adage "A stitch in time saves nine" is very "pat" here. In replenishing the condemned list each week, a requisition is made up, and, as each article is listed and designated by its mark from the unit throughout the institution for which it was put in commission and marked, it is an easy matter to keep up the perpetual inventory. This plan works as nicely in an institution where there are hundreds of employees and patients as where there are only tens.

The problem of housekeeping in an institution or hospital is very nearly the same as that in the home, except on a greater or less scale. It means that, if one looks out for the little things, the greater will take care of themselves. Employees or patients are quick to recognize an article or garment that has had care and attention and been inspected. They will be slower to abuse such an article and destroy it than if indications point to the fact that it has been "just thrown in." Even if it slips by the mangle and gets into circulation out of repair, the employee will see that it gets to the mending room, for aside from the selfish reason that a mended article is easier to handle, its better appearance appeals to him. It is as easy to train a large number of people in these matters as it is to train a few.

THE SERVICE BUILDING OF THE RHODE ISLAND HOSPITAL

A Building Which Solved the Problem of Inadequate Kitchen and Dining Room Accommodation—Six Years of Satisfactory Use Have Proved the Excellence of Conception in Planning

By WARREN C. HILL, of Kendall, Taylor & Co., Architects, Boston

VERY frequently plans are published of hospital buildings recently completed or about to be completed, but, unless for historical purposes, few are published that have been completed and in use for over five years.

Herewith we publish a block of plans of Rhode Island Hospital and isometric drawings of the service building of Rhode Island Hospital, completed and in use since 1912. This building, in both plan and construction, has proved the excellence of its conception, and were the trustees to build again they would make but few changes from the original plans, so satisfactory has been their experience with six years' use of the building.

The hospital itself, opened in 1868, is located in a beautiful park of about twenty-five acres, overlooking the Providence River, and includes, beside the main hospital (which is a group of three large ward buildings and an administration building) an out-patient building, two fine nurses' homes, a power house and laundry, a greenhouse, a garage, a recently completed babies' pavilion, and other buildings of various utilities. A convalescent hospital for children is located some miles away on the shores of Narragansett Bay.

The original buildings were the result of a careful study of the best conditions in hospital buildings then existing, and their adaption to the needs of today bears testimony to the skill and foresight of the founders and their technical advisers. The hospital, always fortunate in its executive committees, trustees and superintendents, has, under their wise management, from time to time planned and carried out revisions of and additions to its buildings calculated to afford the best facilities for its work and to make provision for the latest developments in surgical and medical science. With this in mind, a few years ago they completely rebuilt the operating

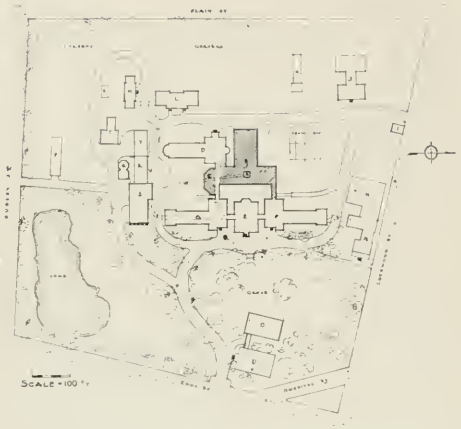


Fig. 1. Block plan of the Rhode Island Hospital, Providence, R. I.

A. Boiler chimney.
B. Service building.
C. Solarium.
D. Southwest pavilion.
E. Administration bldg.
F. North wing.
G. South wing.
H-H. Nurses' homes.
I. Gardener's cottage
J. Female employees' home.
K. Green houses.
L. Babies' pavilion.
M. Isolation buildings.
O. Additions to o. p. dept.
P. Store house.
Q. Morgue and autopsy.
R. Coal bunkers.
S. Power house, laundry, and male employees'.
T. Garage.
U. Out-patient dept.
V. Subways.
W. Smoke flue.
X. Disinfecting bldg.

department, unexcelled in convenience and accommodation by any of the larger hospitals in the East.

Within two years very extensive additions to the out-patient department have been made and further addition in the nature of a large building for private patients is contemplated.

The superintendent of this ideal institution is Dr. John M. Peters, who recently passed his twenty-fifth anniversary as superintendent of the hospital. It was his guiding hand that produced so satisfactory a result in the service building.

Increasing demands made the earlier kitchen and dining room equipment inadequate for the best results, and the trustees accordingly arranged for a service building, which gives ample accommodation to these departments and their dependent offices, and will give such accommodation for many years to come. The plan of the existing buildings and their relations to each other made only one site possible for the new building, and that site was somewhat complicated by the situation of the boiler chimney, which stands directly in the rear of the administration building and has been entirely surrounded by the new building. This stack, carrying the smoke from 350 horse-power boilers, is located several hundred feet from the boiler house and is connected with the boilers by a flue which runs under a portion of the basement of the new building.

A connecting corridor, running from the southwest pavilion, is utilized for connections to the service building, which is in the rear of the administration building and north of the southwest pavilion. A corresponding corridor on the northern side, which may eventually connect with a new building, at present connects the service building with the north wing. From these corridors, inclines lead to the lawns at a gradient so slight that hand chairs and rolling cots can be easily rolled up or down, to allow patients to reach the beautiful grounds around the hospital buildings. Another corridor joins the two above mentioned and gives access from them to the dining room on the first floor and to the service and lifts on the basement floor. The roofs of the corridors give open-air connections to the second story.

On the southern corridor, as a base, an open-air balcony or solarium is built as a part of the service building, 25 feet wide and 65 feet long, with tiled floors and roofs and connecting with the hospital proper by the corridor, on two floors. The basement is used for x-ray work.

The service building itself is T-shaped, touching the corridors at the extremities of the top of the T, and is separated by ample spaces from the main buildings and the southwest pavilion. It is two stories high, with a basement and a sub-basement under the west portion of the building. Its extreme dimensions are 129 feet by 47 feet, and 89 feet by 60 feet.

It is absolutely fireproof throughout and is built of waterstruck brick, with trimmings of granite, sandstone, and bluestone, conforming in general style to the present buildings, though somewhat simpler, as befitting its more utilitarian purpose.

The sub-basement contains storerooms for heavy supplies, range coal, and groceries, and a

Fig. 2. Main kitchen of service building.

Fig. 3. Nurses' dining room of service building.

tankroom, which connects through a subway with the sub-basement of the southwest pavilion, through which are brought the piping for steam, hot water, elevator mains, etc., from the power house. This story is served by two plunger elevators running to each floor above and at the westerly end connects by the main stair to the basement story.

bakery and diet kitchens, under the supervision of an officer, who is provided with an office and toilet.

Directly in the rear of the receiving room are the refrigerators for meats, butter, eggs, milk, and fruit, cooled by circulation from a refrigerating and ice-making plant which is in the power house. The refrigerators in the serving rooms, diet kitchens, bakery, etc., are cooled by brine circulation from the same plant.

Two staircases, one at either end of the building, are of fireproof construction, enclosed in brick walls.

The entire space under the cross of the T is used for stores, except that taken up by the smoke flue and the connecting corridors.

All supplies for the kitchen go up on the west elevator, and all cooked food distributed to the hospital, except that used in this building, is loaded upon food carriers and sent from the kitchen to the top floor, by the east elevator, to the cross-corridor which connects with the north and south corridors, which, in turn, lead to the corridors of the main hospital and pavilions, where the carriers are taken up on other elevators to

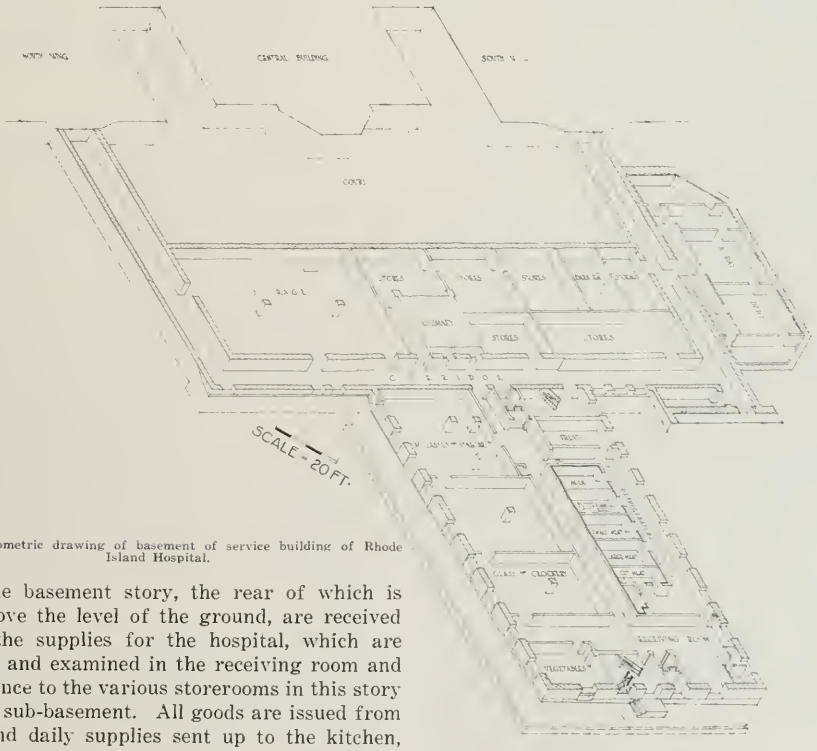


Fig. 4. Isometric drawing of basement of service building of Rhode Island Hospital.

In the basement story, the rear of which is just above the level of the ground, are received all of the supplies for the hospital, which are checked and examined in the receiving room and sent thence to the various storerooms in this story and the sub-basement. All goods are issued from here, and daily supplies sent up to the kitchen,

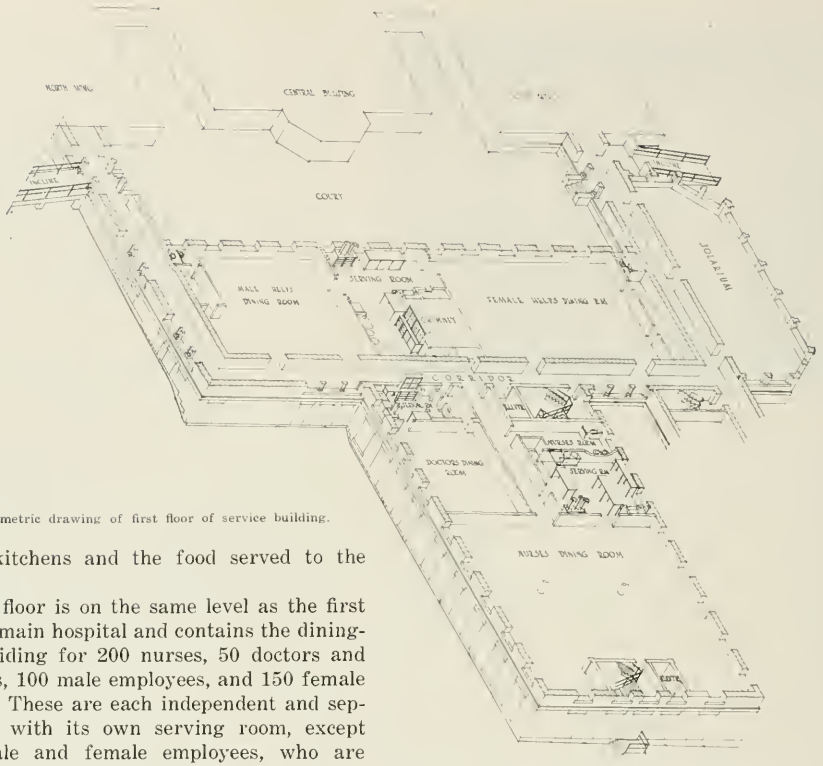


Fig. 5. Isometric drawing of first floor of service building.

the ward kitchens and the food served to the patients.

The first floor is on the same level as the first floor of the main hospital and contains the dining-rooms providing for 200 nurses, 50 doctors and staff officers, 100 male employees, and 150 female employees. These are each independent and separate, each with its own serving room, except for the male and female employees, who are served from one room located between the two dining rooms. Each dining room has clothing-room and toilet provisions.

The serving rooms are furnished with steam tables, coffee and tea urns, power-driven dish-washers, silver and glass sinks, refrigerators, and shelving, and connect by automatic electric lifts with either the kitchen or special serving rooms above, insuring prompt and efficient service.

The corridors and stairs are so arranged as to avoid crossing by the different groups and, so far as possible, crowding and confusion at meal times. The dining rooms and corridors are shut off by doors from the main passages and halls leading to the hospital to prevent noise or odors from being carried to the other buildings.

The real work of the building is done on the top or second floor. Here are the kitchen, the bakery, the pantries, the special diet kitchens, and cooking and class rooms of the training school.

Approaching the new building from the south corridor, one passes through the sun room, looking to the south, and enters the class room, 22 feet by 34 feet, which communicates directly with the diet kitchen. In this room, which is equipped with general and milk refrigerators, pantry, ranges, etc., are prepared all the special diets for the hospital. The adjoining class room is also completely equipped with ranges, tables, etc., for the cooking classes. In this room also will be prepared, under the most hygienic and up-to-date conditions, the milk for the many babies daily cared for by the hospital.

The diet kitchen opens on the corridor, which on this story does not extend directly to the north and south corridors, but separates the kitchen wing from the diet kitchen, serving room, etc. From this corridor opens the elevator by which the trays are sent in carriers to the wards.

Directly opposite the kitchen, and around the great chimney, is the serving room, which is directly over the one on the floor below. Adjoining this room is a small dining room for the kitchen employees, where they can enjoy their meals away from the heat and bustle of the kitchen.

The northern end of this wing is used as a large sewing room, lighted from three sides and supplied with large closets for clothing and linen, and a small office for the housekeeper.

Across the corridor from the rooms above

described, the entire remainder of this floor is occupied by the kitchen and bakery with their dependent offices. The kitchen, running north and south, extends entirely across the building, having light and air from both ends and from the large monitor over the ranges in the middle of the room. Between the kitchen and the corridor are the staircase, opening both to the corridor and to the kitchen, and the food service elevator, on which are sent out all services for the wards and private rooms. Adjoining the elevator are the cook's refrigerators and near by are the cook's storeroom and a drying closet. On the other side of the kitchen are the ovens—a large oven for baking, opening from the bakery, and a smaller oven for roasting meats, opening from the kitchen. A large steam-heated pan-washing sink is located in a space by itself adjoining the kitchen, with a pan closet opening out of the same space. In the rear of this is a room for cleaning and preparing vegetables, with suitable tables, sinks, and vegetable parer.

Running back from the kitchen to the rear is a wide corridor, and opening in a line with this is the elevator from the basement storerooms. On the same corridor are a fuel storage room, a toilet for male employees, garbage room, etc., and the rear staircase. From a cross-corridor here, one enters the bakery, which contains the brick oven mentioned above, flour- and bread-closets, refrigerator, tin closet, and storeroom. The latest and best machinery for mixing, etc., is installed in this room. At the western end is a pastry cook's table and an ice cream room, with freezer, hardening cabinet, packing room, etc. The freezing is done by power and brine circulation, and the usual floor covered with cracked ice and salt is conspicuous by its absence.

In the construction and finish of the building the same care and attention have been given as in any other portion of the hospital. Sanitary finish, coved bases, impermeable material and fireproof construction were adopted everywhere. The stairs are of iron with slate or blue-stone treads and platforms. The elevator shafts and staircases are lined with pressed brick.

The floors in the basement and sub-basement are of granolithic, and in other stories, of white marble terrazzo, except those in sewing room and closets, which are covered with battleship linoleum. The solarium floors are of red quarry tile laid with wide joints, and the kitchen floor is of rubbed slabs of North River stone. The walls are finished generally in hard plaster above a dado of terrazzo 4 feet 6 inches high. The walls of the kitchen and bakery are faced with white glazed enameled bricks from the coved slate base at floor to ceiling.

Walls and ceilings are enameled and the quartered oak doors finished in varnish, rubbed down to a dull gloss.

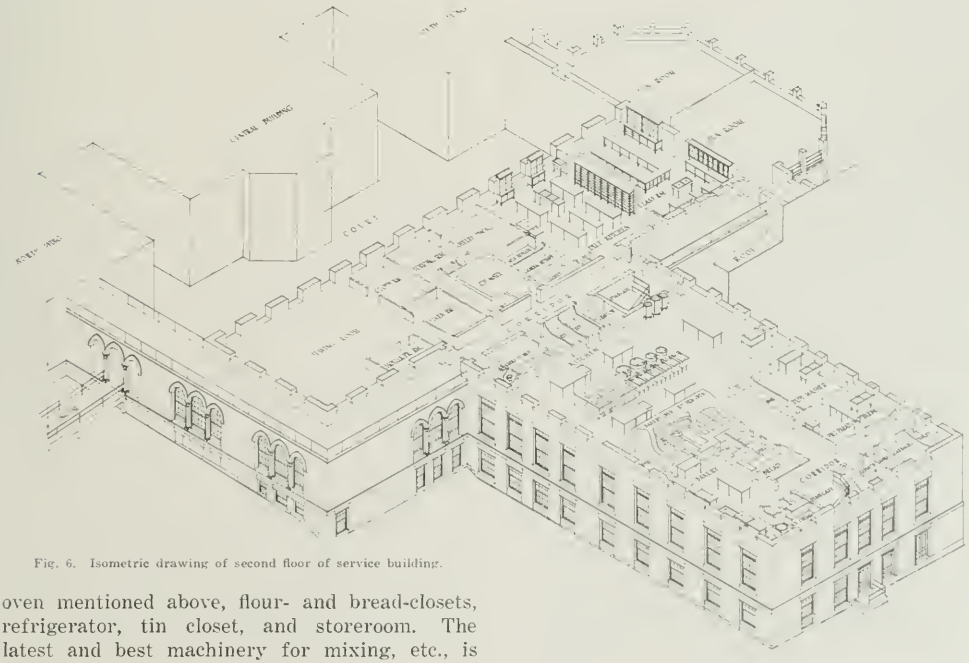


Fig. 6. Isometric drawing of second floor of service building.

THE EDUCATIONAL VALUE OF HOSPITAL REPORTS

Points to Be Covered in the Ideal Hospital Report—An Interesting Appeal to the Public—Clear and Definite Statement of Service That the Hospital Has to Offer—Appeal for Contribution

By CARL E. McCOMBS, M. D., Chief of the Division of Health, Bureau of Municipal Research, New York City

TO the average layman the hospital is terra incognita. He is quite prepared to believe current stories of the inefficiency of nurses, the incompetence of surgeons, and the abuse of patients, because he has little genuine information about hospital matters. His knowledge is too often based upon mere gossip or upon the statements of his private physician, whose own knowledge of hospital service is frequently superficial.

For example, the legend of "the black bottle" of Bellevue hospital, from which the troublesome patient received a draught which quieted him forever, still persists in certain sections of New York City. In my hospital service, I have heard the "black bottle" story many times and have had to argue long to convince patients that the "black bottle" is a myth. Hospital authorities know how common are complaints of abuse of patients, and they know, too, how often these complaints are unfounded. Yet the fact that the public is quite ready to believe stories of hospital abuses is very significant.

The greatest gains in public health during the past ten years have been made through the education of the public and the cooperation of informed citizens, but as yet hospital authorities have taken little part in this popular educational campaign, chiefly because they have not fully realized that hospital problems are community health problems. Hospitals are conducted to supply a community need—not merely for the benefit of a group of physicians or surgeons, or for the training of internes and nurses. If the hospital does not meet a community need and if its patients do not receive better care within its wards than they could secure elsewhere, the hospital has failed in its purpose except as a training ground for nurses and doctors, and this must, in the last analysis, be considered secondary to the welfare of patients.

All credit should be given to boards of directors and boards of managers of hospitals who give freely of their time and money for hospital support and betterment, but too often the very complacency of hospital boards is responsible for the lack of adequate popular support and cooperation in the hospital program. Many hospital superintendents feel that when they have satisfied their boards of directors or boards of managers they have done all that may reasonably be expected. This is why hospital publicity is not chiefly directed toward informing the public but rather toward gratifying hospital boards, and it is for this very reason that hospital publicity has failed to secure the interest and cooperation of citizens who are not officially concerned with hospital affairs.

In the majority of instances, hospital publicity is limited to the annual report. In some hospitals, bulletins are published periodically, but these are designed chiefly for limited circulation among the members of the hospital boards or among contributors. Analysis of annual reports and other publications of hospitals throughout the country demonstrates clearly that, in so far as the education of the public is concerned, these publications are of very little value. As most hospitals publish an annual report, some suggestions are well worth considering as to what such a report should contain that is of educational value.

The determination of the efficiency of hospital service depends in considerable degree upon the comparison of that hospital with other hospitals doing the same kind of work and under approximately the same conditions. If, for example, it is found that one hospital has an exceptionally high mortality rate for its pneumonia cases as compared with another hospital, the reasons for high mortality in the one should be made the subject of careful study; if, in the maternity service of one hospital, practically all maternity patients are delivered by instrumental means, with frequent injury to mothers and babies, and in another hospital are delivered without instrumental means, that is, normally, an investigation to disclose the reason for such wide difference in procedure is warranted; if in one hospital the "patient-day" cost of service is high without any better results being secured than in a hospital where the cost is low, reasons should be sought for such high cost; if the cost of overhead in one hospital is relatively much higher than that in another giving as good service, it is important that the hospital authorities and the public know it. It is true that comparisons are odious, but it is equally true that it is only by comparisons that the bad may be found out and eliminated, and the good taken advantage of. Our standards of measurement in all things are raised only as our experience broadens, and more comparisons of our

own experience can be made with the experience of others.

Assuming, then, that there is a value in the comparison of hospital reports and hospital statistics, it is obvious that there must be some common standards of measurement. To compare one hospital with another on the basis of data now presented in annual reports would be like comparing sugar and salt on the basis of their physical properties, without any regard for their uses or chemical constituency. There are, however, certain standards of measurement which may be applied to hospitals, and, if these standards are used for measuring hospital work and results, comparisons will be well worth while. With the view, then, of furnishing hospital authorities and the general public with information which will be standard and comparable, I have attempted to set forth in succeeding pages my idea of what information should be made available for the citizen in an annual report. Not all hospital authorities will agree with me—that is certain—but it is also certain that some of my observations will strike a responsive chord in the breast of the "average citizen."

First of all, the annual reports of hospitals, if they are to be used for the development of comparable data in hospital service, should cover the same fiscal period, and this period should be, if possible, the calendar year, January 1, to December 31, inclusive. In New York State, for example, owing to the fact that the state board of charities requires the hospitals of the state to submit reports for the fiscal period of the state, namely, July 1, to June 30, inclusive, this period, instead of the calendar year, is used by many New York hospitals for their annual reports. Other states require reports for a different fiscal period. Comparison of statistics of a hospital using one fiscal period with those of another hospital using another period is unsatisfactory, to say the least.

Readers and writers of reports of one kind or another know that method of presentation of material is a most important factor in the usefulness of these documents. The world is full of reports of all kinds that have been read by few people except the author, and the reason they have been "scrapped" without careful reading and without obtaining their desired ends is that the fundamental facts of good publicity have been ignored. When the average man sits down to read a report, it takes him a few minutes to get comfortable and to adjust himself to the business of reading. If the report begins uninterestingly, he puts it aside until "tomorrow" but tomorrow never comes, so far as that report is concerned, for he has lost interest in it. But if the report begins with some statement or story which will hold his attention during the time that he is adjusting his mental and physical processes and getting comfortable in his chair, he will, in the majority of instances, continue that interest to the end of the report, provided in other respects the report tells him what he wants to know clearly and succinctly.

The first thing, then, that an annual report should offer is a story—the superintendent's story—of what the hospital does, the difficulties it encounters, its aims and aspirations. Here is the place for the "heart throbs" and the human interest. This superintendent's story should not be too long, but merely a brief summary statement, readable, non-technical and designed not chiefly for a board of directors or medical staff, but for "Mr. Average Citizen," who has merely ordinary knowledge of hospital work. In short, it should fulfill the same purpose as the head lines of the newspaper—to attract attention and stimulate a desire on the part of the reader to know the full story. If some humor can be injected into the story, so much the better. The business of a hospital is necessarily one that concerns the pathos of life, but too much stress on the pathetic in these times is likely to discourage the reader.

The next thing that the average reader of a hospital report would like to know, after his attention has been gained and held, if the report is of a hospital in his own community, is what the hospital is prepared to do for the citizens of his community and for him. We have yet to see a hospital report containing a clear and concise statement of what the hospital has to offer in the way of service to the citizen; what kind of cases it will receive; what kind of rooms or ward beds it has available, and how they are equipped; what kind of food it serves, and what charges it makes for ambulance service, bed service, operation, special nursing services, drugs, laboratory work, x-ray work, etc. Yet these things are matters of considerable moment, not only to the patient who wishes to enter the hospital, but also to the possible contributor. One may well wonder how long it will take hospital authorities to understand that if they have a service to sell, they should be willing to state what that service is and how much it costs. No one with experience in hotels would think of going to a hotel and engaging rooms and service without some definite knowledge of the service offered and its cost.

Ordinarily, arrangements are left to the physician, who negotiates with the hospital authorities, and the patient does not know until he receives his bill just what it is going to cost him. Physicians know how frequently patients

complain of being overcharged for services rendered. Many of these complaints would be done away with if there were a clear understanding on the part of the patient of what he will have to pay for his hospital experience. Of course, it is not always possible to say exactly what hospital service will cost, but so far as possible, the prospective patient or contributor should know.

The next thing that a citizen wants to know about a hospital is how it is governed. When a business man is asked to become interested or to invest in a given enterprise, one of the first inquiries he makes after being informed of the purpose of the enterprise is, "Who are the directors?" and the presence or absence of the names, as directors, of men or women in whom he has confidence has considerable weight in influencing his decision. There should be, therefore, in a hospital report, a clear statement of the organization of the administrative board or head with a list of the names of the members of the board of directors or trustees. If they are men and women in whom the citizen has confidence, he will have confidence also in the hospital's work.

Having informed the reader of the purpose of the hospital enterprise and the personnel of those responsible for its administration and control, the organization of the hospital force should be considered and the report should contain an outline of the hospital force, including the medical staff, from the superintendent down to the most humble dish-washer, with the salaries or wages paid each member of the organization. Such outline should be shown graphically in the form of an organization chart, indicating all lines of responsibility leading upward through the various branches of hospital service to the superintendent and the board of directors or trustees. Every business man knows the value of good organization, and he knows also something about salary and wage standards in business. An organization chart, therefore, which will show exactly how supervision is exercised and how the various hospital units are related, will enable him to form some judgment as to the efficiency of the supervisory and working force and the relation of these to salary cost.

Having informed himself as to the general organization of the hospital, the reader of the report would probably next inquire about the present state of the hospital's finances and what it proposes to do with the money which is solicited. In other words, he would ask for its budget. Briefly, a budget is a well-defined plan for financing any private enterprise or unit of government for a definite period. Officers of national, state and municipal government have realized the need and use of a budget or plan for financing their respective units of government. A budget is just as necessary for a hospital, and should include the following:

1. A balance sheet showing what the hospital owns and owes.

2. A statement of past operations, showing in comparative form the revenues and expenses accrued during each of the preceding two years, revenues being classified according to sources, and expenses classified according to the various hospital functions served, as medical care of patients, nursing service, laboratory service, housekeeping service, etc. The statement of expenses should be supplemented by unit costs wherever possible, that is, cost per patient day for medical care, nursing care, food, drugs, etc.

3. A statement showing the various sources of revenue and the estimated amount of revenue from each of these sources which may be expected in the next year.

4. A special statement setting forth in some detail the regular work to be performed on the basis of past experience, and extensions of ervice, improvement to be made, or other changes contemplated in the next year, with the estimated cost thereof.

Such a budget plan would give the citizen accurate knowledge of the financial condition of the hospital; would enable him to determine how far present revenues meet existing needs, and to what extent his assistance is needed for carrying on the extensions of service recommended. In short, he would be able to exercise business judgment in determining the amount of his contributions to the hospital as a business enterprise.

Before finally deciding that he would subscribe to and cooperate in the hospital's program, he would be likely, as a good business man, to inquire whether the results secured were worth the cost, and in the present state of hospital statistics he would probably have considerable difficulty in satisfying himself on this point. There are few hospitals in the country, except in the larger cities, where records of the medical care and treatment of patients are worth the paper they are written on. Physical examination records are often completely lacking; records of temperature, pulse, respirations, etc., are often omitted; nurses' notes are fragmentary and stereotyped; records of operations are often too brief to be of any value; and laboratory records are negligible. In fact, before there can be any records worth comparing, the hospital superintendent must see that records are properly kept. There is, however, certain information which every hospital keeps at the discharge of patients as to the result of treatment, as "recovered," "improved," "unimproved," "died." Such statistics should be shown for all patients according to disease or injury, and this is usually done; but in order that such a statistical statement may have comparative value, it is, of course, necessary that there

be used, in designating diseases or injuries, a common, approved nomenclature, such as has been adopted in the Bellevue and Allied Hospitals of New York City, and is known as the "Bellevue Hospital Nomenclature." At the present time there is some difficulty in determining because of lack of use of a standard nomenclature, whether "pneumonia," "appendicitis," "gastro-enteritis," etc., mean the same in one hospital as in another, and they must mean the same if the results of treatment are to be compared. Further classification should be made of the results of treatment of infants and adults, private and public patients. It would be well also to show separately the results of treatment in each department of the hospital, as the medical department, surgical department, children's department, maternity department, etc., instead of lumping all patients in one general group, since in all hospitals practically the same departments or branches of service are represented.

In every community the important question is bound to come up sooner or later in regard to the necessity of increasing the hospital facilities. The demand for hospital service, rather than private medical service in the home, is increasing daily, and hospitals must be prepared to meet the need. Yet there are few hospitals in which there are adequate records to show, for any given period, what was the actual percentage of bed occupancy for that period. To show these facts is by no means difficult, and accurate statistics as to occupancy offer a really convincing argument for or against increasing hospital space. The total available bed capacity of the hospital should first be clearly stated and divided, according to the various units of the hospital, as men's medical, women's medical, men's surgical, women's surgical, maternity, children's department, etc., depending on the actual departments maintained in each case. From this bed capacity the possible number of patient days may be calculated by multiplying the bed capacity of each department by 365. The actual occupancy of beds, that is, patient days, in the various departments should then be determined from the hospital records, and the percentage of occupancy calculated by dividing the actual number of patient days in each department by the total possible patient days for that department. If, for example, it is found that the children's department is only occupied to 25 per cent of its capacity in the year's period, it indicates that some of this space may perhaps be utilized for other purposes; if the maternity wards show a percentage of occupancy above 85 per cent it is evident that there is need for more space for this department, for 85 per cent is perhaps as high a percentage of occupancy as can be efficiently maintained in any department. There must be always a few vacant beds for emergency.

Such records as have been described will give the citizen and possible contributor a clear understanding of where extensions of service are needed. The mere statement that the hospital had 30,000 patient days means nothing to him unless he knows how these patient days were divided according to the classes of patients cared for, and what percentage of the total possible patient days 30,000 represents.

In the majority of reports of private hospitals one usually finds lists of contributors and the contribution of each. This is, of course, desirable because contributors deserve such recognition, but what is more important is the method of soliciting contributions. They should be solicited in the hospital reports for general rather than special purposes. In many hospitals large sums have been contributed for special purposes, and, because of lack of proper development of service toward the purposes for which the funds are designated, this money lies idle and cannot be used for other and more urgent purposes. The annual report of a hospital supported by private contributions should, therefore, make its plea for funds for general hospital operation and maintenance, leaving it to the discretion and judgment of the administrative board or head of the hospital as to the use of such funds. If the administration of the hospital is well provided for and adequate reports of stewardship are made, as suggested in preceding paragraphs, little difficulty will be found in inducing contributors to make their contributions without restrictions.

It would be advisable also to include in the annual report, as is done by some hospitals, a subscription blank which may be torn out and sent in by the one reading the report, in the event that he wishes to contribute. The citizen who receives a hospital report which tells him what he wants to know about the work of the hospital and its cost, will be in proper frame of mind to contribute when he has read the report.

To sum up, the annual report of a hospital should, if possible, cover the period of a calendar year, namely, January 1 to December 31, inclusive, and should include, as a minimum, the following features in the order named:

1. The superintendent's story, brief, to the point, readable and entertaining.
2. A clear and definite statement of what the hospital has to offer in the way of service, including the kind of ward beds or private rooms available and their equipment, kind of food served, charges for bed service, operations, laboratory service, x-ray service, drugs, etc.
3. The organization and duties of the administrative board or head of the hospital.

4. A graphic representation of the organization of the hospital force, including the medical staff, from the superintendent down, showing the names, salaries and wages of the various employees, the units or departments of the hospital in which they are employed, and the relation of the various units or departments to the complete organization.

5. The hospital budget, including a balance sheet of what the hospital owns and owes, with comparisons for at least two years previous, showing also in comparative form revenues and expenses with unit costs; a statement of the sources of revenue for the ensuing year, and the possible amount to be derived from such sources and a work program setting forth work to be performed, extensions and additions contemplated and the estimated cost thereof.

6. Results of hospital treatment, including special tables for each department of the hospital, with details of kind of cases treated and the outcome of treatment of patients classified according to diseases or conditions.

7. The available bed capacity of each unit or department of the hospital, the number of possible patient days, and the actual number of patient days or bed occupancy, including the percentage of occupancy in each unit or department.

8. A plea for contributions for general hospital purposes with a list of contributors and a subscription blank for the use of contributors.

The essentials of a good hospital report, designed chiefly for informing citizens and contributors, include at least the foregoing items. Reports should not be padded. Padding a report is not only expensive to the hospital, but has a tendency also to minimize the usefulness. The tired business man has no time to read a hundred-page book on hospital business, but he will read a report which is brief and to the point. Brevity then, which is the soul of wit, should also be the soul of a hospital report.

TELEPHONE OPERATOR'S INFORMATION CARD

Prompt and Authoritative Service Insured by Simple Scheme of Card Index Kept Up by the Night Clerk and Checked by the Head Nurse of Each Ward

By PLINY O. CLARK, Superintendent of the Ohio Valley General Hospital, Wheeling, W. Va.

At any hospital the information clerk and the telephone operator should be considered two of the most important employees. Perhaps the work of the telephone operator is the harder of the two, because it can not be checked up so thoroughly, and yet its results appear quite unexpectedly; for instance, after she has carelessly given out information in a tragic tone of voice saying that a patient is not so well this morning, the relatives immediately rush in, expecting to find the patient at death's door.

Information regarding a patient in a dying condition should undoubtedly be given out by an officer in authority, but much information can be given out by the telephone operator in an entirely satisfactory manner if she is provided with authoritative records, such as the card system here pictured is intended to give.

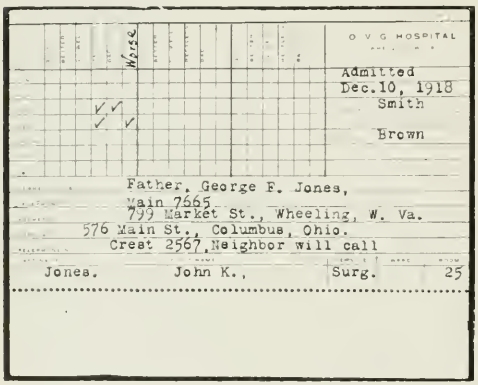


Fig. 1. Information card indicating condition of patient.

Usually the morning hours are the ones during which the greatest number of inquiries regarding the condition of the patients come in. These are the hours when the nurses are the busiest; so the simple scheme which is illustrated in this article was devised and is working very well.

Information regarding the patients is contained in a card index, the card used being that put out by the American Kardex Company for use with the Kardex system. The name is on the bottom line and is always visible in the panel at the elbow of the clerk, who has merely to place her finger on the card and push up the cards above to make all the information available. In fact, the reply can go back to the inquirer immediately, or almost before the question is out of his mouth. The tab at the bottom of the card (Fig. 1) is, of course, torn off as soon as the card has passed through the typewriter.

This information is, of course, used only during the early morning as an indication to the operator of the general condition of the patient during the rest of the day.

The card is executed by the night clerk for all of the patients admitted on the previous day; in fact, up to 7 a. m., the condition is indicated by the night supervisor, who checks it in the proper

column before going off duty. This eliminates much of the calling of floors during the busy hours of the morning. In a very large institution, the head nurse of each ward or floor should doubtless give this information and check the records herself.

A patient in a dangerous condition is noted by a red indicator placed over the name; a patient to be operated on that morning is noted by a blue indicator placed over the name. Many other indications may be had in a similar manner. The card, it should be noted, may be filed in any of the open styles of indexing, of which there are several upon the market.

No plan will work successfully unless the telephone operator is a young woman of considerable ability and efficiency, and such, I take it, hospitals are anxious to employ. Furthermore, since the operator must be always prompt and efficient, her hours must not be so long that she loses alertness and cheerfulness.

Fig. 2. The card in use with information at operator's finger-tips.

VENEREAL DISEASE CONTROL

Hospital Care Is Both Necessary and Practical—Social Service an Important Element in Effecting Cures—Nation Must Make Up for Former Neglect

By C. C. PIERCE, Assistant Surgeon-General United States Public Health Service

VENEREAL diseases are communicable parasitic infections caused by identified organisms. Their modes of transmission are known and a practicable laboratory technic has been worked out for diagnosing each one of them. Recent methods of treatment have shortened the periods of infectivity and have improved the prospects of ultimate recovery.

These diseases form one of the most serious of all the public health problems and can best be handled from that angle. Nowhere in public health is the cooperative assistance of the hospital, the dispensary, and the laboratory of greater utility than in the control of these diseases.

Syphilis and gonorrhea are no more readily communicable than typhoid fever or pneumonia, and are more easily nursed. Precautions similar to those observed in the care of persons ill with typhoid fever will prevent the spread of gonorrhea, syphilis, and chancroid to other patients, nurses, and attendants.

The necessity of facilities for examination, diagnosis, and treatment, adequate isolation equipment, and a system of social service and follow-up have been put forward as financial reasons why hospitals could not take venereal diseases. As has been pointed out, the same facilities for examination, diagnosis, treatment, isolation, etc., needed for the care of the other communicable diseases, generally accepted by hospitals, are sufficient to care effectively for venereal diseases.

Few diseases have been so neglected, so deprived of the hospital treatment they need as gonorrhea, syphilis, and chancroid. Popular prejudice is probably responsible in a great measure for this neglect. The psychological effect on the patient who occupies a bed adjoining that of one infected with a venereal disease is not so much the fear of contracting the disease as a revulsion against the propinquity of a "bad disease," since "bad diseases" are contracted by those who indulge in sexual wrong-doing. Such people are, therefore, "bad people" and should not be allowed to occupy the same ward with persons infected with typhoid or pneumonia, regardless of their past history.

The hospitals must not only change their present attitude toward venereal diseases but, if they are to be modern hospitals, they must provide the very best men and the very best means for the diagnosis and treatment of venereal diseases, regardless of how these diseases were contracted.

The Government, through the Public Health Service, has proved that venereal diseases respond to early hospital treatment and that clinics and hospitals for this purpose are not failures, but feasible, and that these diseases can be cared for in general hospital wards without danger to other patients.

In June, 1918, the Congress of the United States

passed the Chamberlain-Kahn Bill which created the Division of Venereal Diseases in the Public Health Service.

Section 4 of this act provides that "The duties of the Division of Venereal Diseases shall be in accordance with rules and regulations prescribed by the Secretary of the Treasury (1) to study and investigate the cause, treatment, and prevention of venereal diseases; (2) to cooperate with State Boards of Health for the prevention and control of such diseases within the States; and (3) to control and prevent the spread of these diseases in interstate traffic; Provided, That nothing in this chapter shall be construed as limiting the functions and activities of other departments or bureaus in the prevention, control, and treatment of venereal diseases and in the expenditure of moneys therefor."[1]

The service has no intention of abandoning the movement against venereal disease with the conclusion of the war. It is planned to increase the number of clinics until every person in the United States infected with venereal disease may receive treatment regardless of his financial condition. Forty-two states have already complied with the regulations promulgated by the Secretary of the Treasury and have received their allotment of the Chamberlain-Kahn fund.

This allotment is to be expended along general standard lines in accordance with an accounting system to be forwarded by the Interdepartmental Social Hygiene Board approximately as follows: (1) for treatment of infected persons in hospitals, clinics, and other institutions, including arsphenamine and other drugs, 50 percent of the allotment; (2) in carrying out educational measures, 20 percent; (3) in carrying out repressive measures, 20 percent; and (4) in general administration and other activities of venereal disease control, 10 percent. (This distribution is provisional and subject to modification after conference and agreement between each state and the Public Health Service to meet best the needs of the particular state.)

The service stands ready at all times to cooperate and render assistance wherever possible through detail of employes, securing of arsphenamine, and providing literature for educational matters, etc.

The importance of social service among those infected with venereal disease is becoming increasingly apparent. It is planned to give a number of selected public health nurses a course of intensive training in medical social service with special reference to venereal disease control. It is well known that instruction concerning the dangers of venereal disease is much more effective and better received when given by qualified persons.

Education in sex hygiene should begin in the home and school before the child has reached the age of puberty.

In 1912 an army surgeon makes the following statement in an article printed in the *Military Surgeon:* "About one-third of the patients seeking free medical treatment at the free dispensaries of hospitals do so for venereal diseases, and yet the hospital and dispensary accommodations in the United States are notoriously inadequate. Morrow estimated the number of syphilitics in the United States at two million, and if the proportion between syphilitics and gonorrhea infections found by the statistics of the Committee of Seven in 1901 in New York City of near one to ten still obtains for the country at large, the number of sufferers from venereal diseases would reach the enormous numbers of nearly twenty million."

The registration of the men of the country for the first draft brought us face to face with the fact that 3 percent of the million draftees whose examination blanks first reached the Adjutant General's office in Washington had a venereal disease when they reported at camp.

This 3 percent came from civil life, came from communities where this notoriously inadequate hospital and dispensary accommodation condition obtained.

The hospitals and clinics of the country have a very important part to play in this campaign against venereal disease; without their hearty cooperation our program will be almost useless.

The dispensary or the out-patient service has a twofold responsibility: educational and treatment. The vast majority of venereally infected patients have an almost criminal ignorance as to the danger and seriousness of these infections. The dispensary should in a measure be a health center not alone for the treatment of the venereally infected but for the dissemination of knowledge concerning the prevention of these diseases.

Treatment should be standardized. Patients should be carefully instructed in all the details of the management of their cases. The antiquated method of giving a patient infected with gonorrhea a bottle of fluid for injection and the stereotyped advice to syringe three or four times a day should be abolished. Patients should be given a careful demonstration of the method of using the syringe; definite hours to use it; and explicit directions as to length of time the solutions must be retained. Rigid rules for cleanliness and the protection of their associates from infection must be instilled. Patients should be cautioned against

[1]For details of the work done throughout the country on the basis of this authority, see the article in the Dispensary and Out-Patient Department.

the dangers of latent gonorrhea and informed that the absence of the discharge does not signify cure.

A social service department is essential in a venereal disease clinic. The giving of arsphenamine seems to end the responsibility of most clinics treating syphilis and this is a common cause for failure. Unless patients are carefully followed up, advised of the necessity of further treatment, and encouraged to continue their visits to the clinic, time and money have been worse than wasted.

It is important that all sources of infection and contacts be sought for just as diligently as in the other communicable diseases. Every effort should be made both in the out-patient department and the hospital to remove the erroneous impression that every patient infected with a venereal disease is a "moral leper," since it is an established fact that many individuals are innocently infected.

Levity should have no place. Doctors and nurses should observe a professional dignity and a sympathetic understanding.

It has been repeatedly demonstrated that the spread of venereal disease can be controlled. The only essential lacking for the ultimate eradication of venereal disease is the will of the people. Just so soon as the people of the United States definitely decide that they want to eliminate the venereal diseases, these diseases are doomed.

STANDARDS FOR TUBERCULOSIS SANATORIUMS*

Location—Importance of Considering the Individual Patient—Standard of Efficiency—Necessity of Central Authority—Value of Sanatorium Records—The Records Used in Minnesota

By ROBINSON BOSWORTH, M.D., Executive Secretary, Advisory Commission, State Sanatorium for Consumptives, St. Paul, Minn.

EARLY in the campaign against tuberculosis, sanatoriums were constructed in different parts of the country for purposes which were somewhat different from the purposes for which the majority of such institutions are established today. In early times it was the favorable, or, as usually designated, "incipient" case for which institutional care was desired. Today it has been found wise to include as well, and in many cases give preference to, the more advanced and in some respects hopeless cases. This is proper, for not only should these latter be given every opportunity for recovery obtainable in the best conducted institutions, but provision should be made to permit acceptable isolation of infectious cases from others of the family group, especially the children.

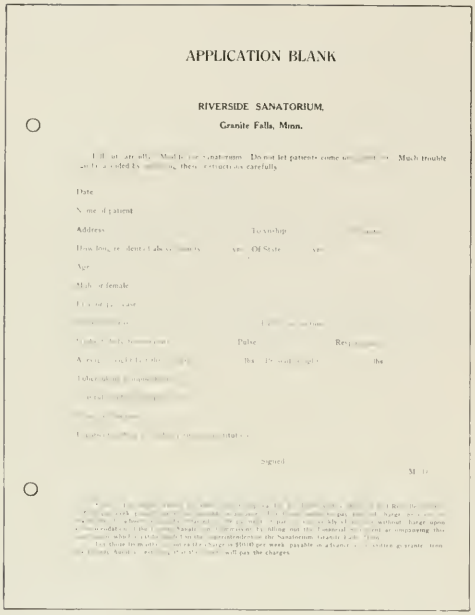
With this introduction it is somewhat interesting and profitable to consider the changes necessary in the facilities offered by most sanatoriums in keeping pace with the changes in character of cases admitted.

LOCATION

Let us take up the matter of site or location first. I doubt whether there are great differences in opinion as to the proper location of a general hospital, provided it is well understood for what purposes a general hospital is established. But there seems to be a great difference of opinion when it comes to tuberculosis sanatoriums. We find them located miles from railroads and in many instances equally distant from any source of supply. It is somewhat difficult to conceive of the reason for this. At one time, possibly fear of institutions by communities might have had some influence, but surely not at this time; still there are many instances today in which sites selected for proposed institutions are just as badly chosen in this respect as the earlier ones. I know of a million-dollar sanatorium to be erected on property over a dozen miles from the nearest city.

One or two miles from town, preferably on a railroad or trolley is surely far enough. There are no advantages in greater distances comparable to the disadvantages. In addition to the increased cost and greater problems in construction, the administration is enormously handicapped by improper location. Employees are seldom given proper consideration during the planning of medium-sized tuberculosis sanatoriums, but with improper location we can guarantee that the administrative head will devote many weary hours to their problems which might have been avoided to a large degree if this question received the study and thought it deserves. Finally, the question of cost enters in so strongly that it

*This paper is the sixth in a series, by various authors, on the classes of special hospitals. The first, "Standards for a Children's Hospital," by Stafford McLean, appeared in May; the second, "The Standards of Hospital Education for Interns," by J. M. Baldy, in June; the third, "The Standardization of Hospitals for the Insane," by William C. Sandy, in July; the fourth, "Standardization of State Hospitals," by A. L. Bowen, in August; the fifth, "Institutions for the Care of Epileptics," by William T. Shanahan, in October.



APPLICATION BLANK

RIVERSIDE SANATORIUM,
Granite Falls, Minn.

Fig. 1. Application blank for admission to sanatorium. Actual size, $8\frac{1}{2}$ by 11 inches.

is indeed a stout-hearted board that will knowingly add so greatly to the constant year-by-year overhead expense.

There would be nothing gained in a prolonged discussion on the other points to be considered in connection with the site. To mention some of them should suffice:

Transportation Facilities.—Trackage for coal and other freight. Condition of roads.

Water Supply.—Source of, quality and quantity.

Site for Building Purposes.—Exposure, surroundings.

Character of Site for Building Purposes.—Grading needed, protection from prevailing winds in winter in northern climates, dust possibilities, proper ventilation.

Objectionable Surroundings.—Cemeteries, slaughterhouses, etc.

Purchase of Sufficient Property to Prevent Future Objectionable Surroundings.

Ice Supply, Electric Light, and Telephone Service.

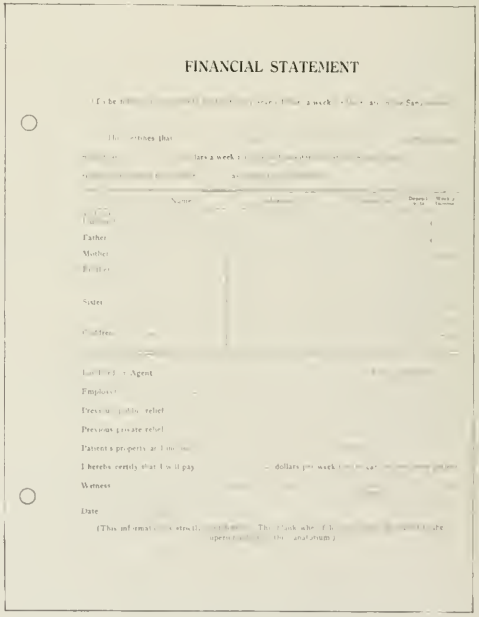
SOCIAL CLASSES TO BE ADMITTED

A question which should arise in any consideration regarding the construction of public institutions for the care of the tuberculous is that of class or classes in the community the sanatorium is to serve.

There are those who view the tuberculosis problem as one confined largely to that class forced by necessity to appeal to the local officials for aid. Although there are many in this social class who should receive aid to obtain proper care for their tuberculous, it is well known that only a limited number voluntarily appeal to the officials. Partly because of this limited number of appeals, the local officials doubt the existence of any considerable tuberculosis problem.

However, the point I wish to make is that the tuberculosis problem of the community as a whole is not limited to this class, whether they appeal for aid or not. Any sanatorium established and maintained on a basis of supplying accommodations for this class alone is exceedingly narrow in its vision and in its ambition, and will of course fail to solve in any great degree the tuberculosis problem of a community. It will never reach far enough to be of any considerable value to the community—it may be for the particular class it serves, but even here its usefulness is often impaired by the reputation it is likely to have as one for the "protection of the public" and not primarily for the benefit of the individual as it should be. For the same reason such an institution never obtains active public support—its field is too small—not in its opportunities but in its "pull" on all classes from whom support should come.

It should be a first principle that a tuberculosis sanatorium should offer much of real personal value to the individual admitted in addition to



FINANCIAL STATEMENT

Fig. 2. Financial statement to be filled out for patients unable to pay seven dollars a week. Actual size, $8\frac{1}{2}$ by 11 inches.

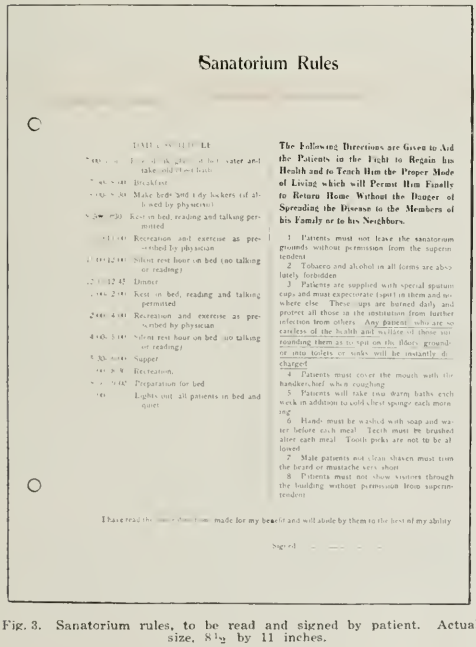
affording a proper place for one to go in order to protect others of the family group from infection. It is somewhat difficult to persuade one to enter a public institution almost solely for the protection of the public.

If sanatoriums are necessary or desirable to make a successful fight against tuberculosis, they should be built and maintained with such a standard of service supplied as to enable them to reach all classes in the community which they serve. It is an error to provide general hospital accommodations solely for the "down-and-out" class in a community. It is a greater error to reach only this class with a tuberculosis sanatorium if it is supposed to represent a consistent effort to control the incidence of tuberculosis.

HOSPITAL PROVISIONS IN SANATORIUMS

To be prepared to serve efficiently the tuberculous of a community, a sanatorium must afford accommodations for really sick patients—sick as judged by the standard of a general hospital and just as much entitled to the accommodations and nursing and medical care as general hospital cases. It is here that so many tuberculosis sanatoriums fail in their duty to the public. They still offer the armamentarium of the original sanatoriums for early cases.

In planning sanatoriums it must be realized that not all early cases remain early or favorable


Sanatorium Rules

The Following Directions are Given to Aid the Patients in the Fight to Regain his Health and to Teach Him the Proper Mode of Living which will Permit Him Finally to Return Home Without the Danger of Spreading the Disease to the Members of his Family or to his Neighbors.

1 Patients must not leave the sanatorium grounds without permission from the superintendent

2 Tobacco and alcohol in all forms are absolutely forbidden

3 Patients are supplied with special sputum cups and must expectorate (spit) in them and nowhere else. These cups are burned daily and protect all those in the institution from further infection from others. Any patient who are so careless of the health and welfare of those surrounding them as to spit on the floors, ground, or into toilets or sinks will be instantly discharged

4 Patients must cover the mouth with the handkerchief when coughing

5 Patients will take tub warm baths each week in addition to cold chest sponge each morning

6 Hands must be washed with soap and water before each meal Teeth must be brushed after each meal Tooth picks are not to be allowed

7 Male patients not clean shaven must trim the beard or mustache very short

8 Patients must not show visitors through the building without permission from superintendent

I have read the above directions made for my benefit and will abide by them to the best of my ability

Signed

Fig. 3. Sanatorium rules, to be read and signed by patient. Actual size, 8½ by 11 inches.

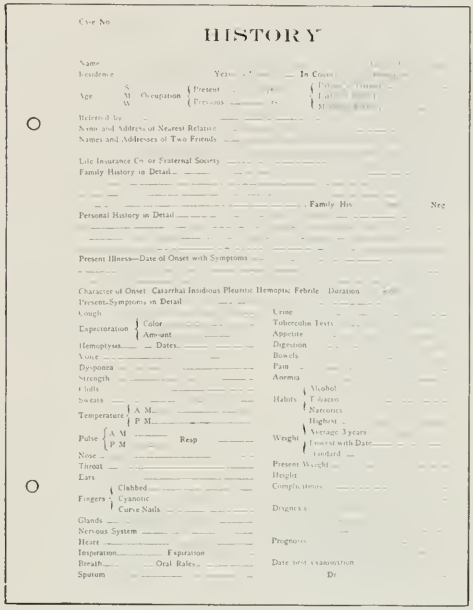

HISTORY

Fig. 4. Patient's history blank. Actual size, 8½ by 11 inches.

cases; that accidents happen and complications develop even in this group of cases, and that under these conditions real hospital service is demanded for the best interests of the patient.

In the Minnesota system of county sanatoriums a minimum of 20 percent of the total capacity of each institution is provided for in rooms, single and double, to permit of such isolation as may be wise during emergencies, rapidly advancing disease and death. It has been our endeavor to provide treatment rooms well equipped, utility rooms and nursing equipment, diet kitchens, etc., to assist in the proper care of this type of case which is not usually included in the equipment of the earlier sanatoriums.

In caring for all stages of tuberculosis there are those who can apparently do well with accommodations such as the lean-to type of building affords. In the northern climate, however, a small proportion only of the total capacity of the institution should be so housed.

It is the experience of most sanatoriums that too great capacity is provided for the ambulant cases and too little for the bed cases. A plan which affords the maximum number of beds which can be used for either bed or ambulant patients is the ideal. This has been very well accomplished in the Minnesota sanatoriums by the use of small instead of large wards which are enclosed in glass and heated. Even if all single

and double rooms are occupied, bed cases in these small wards can be perfectly handled in the coldest weather by closing some or all of the windows and turning on the heat during meals or at other special times. These wards are so arranged that they are ventilated from three sides thus making them as comfortable as porches in summer weather.

Rest is probably the most important one agent at our disposal for the treatment of active tuberculosis, but it should be rest with comfort. It is not always the coldest exposure which contains the greatest virtue.

It is of the utmost importance to consider the

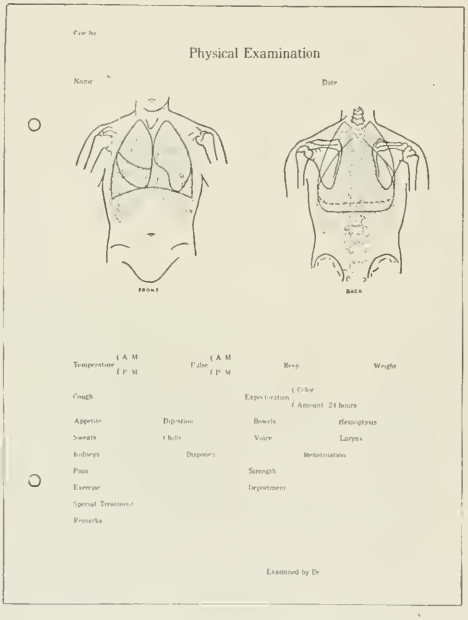


Fig. 5. Form upon which results of entrance examination are reported, as well as subsequent monthly examinations. Actual size, $8\frac{1}{2}$ by 11 inches.

value of small wards and rooms from the point of view of the patient. Patients who are objectionable because of their advanced disease or other reasons should not be placed in wards with others. The lack of ability to segregate such patients is given as one of two reasons why 35 percent of all cases admitted into county sanatoriums in one state returned to their homes in less than thirty days. It may be urged that the expense of providing the proper number of rooms for such cases will be too great. We answer that by asking of what value thirty days or less treatment is to patients who might otherwise be kept several months.

In this group of institutions in which 35 percent left within thirty days we find that 72 percent left within ninety days. In eight Minnesota county sanatoriums for which we have data 18.5 percent left within thirty days, and 40 percent in ninety days—in other words, 60 percent remained in the institutions longer than three months. This is a pretty fair record, considering that these discharged cases included all those who

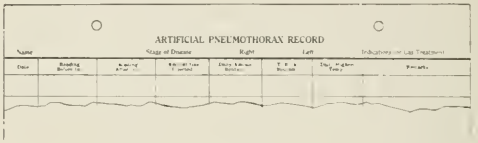


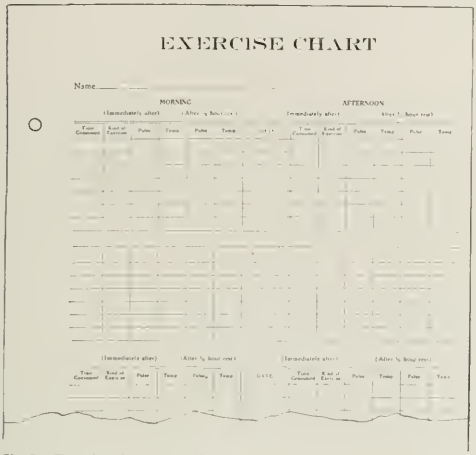
Fig. 6. Artificial pneumothorax record of patient. Actual size, $8\frac{1}{2}$ by 11 inches.

died in the thirty-day period, and, as preference by law is given to the far-advanced cases, many deaths occur in the first few weeks of sanatorium residence.

The value of an institution treating tuberculosis patients for short periods is small unless one believes that patients can be rapidly instructed in matters pertaining to prevention and cure, so as to permit of their safe return to their homes. Whether or not this can be done, unfortunately those institutions which lose their cases after short residence do not as a rule attempt to instruct or succeed in instructing their patients properly or well. The value of sanatoriums as a means whereby control of the patient is obtained over a period of time sufficient to permit of permanent improvement is rarely conveyed to the mind of the average patient. Not only should the patient be convinced of this fact, but every effort should be made to induce the patient to remain many months. This can be accomplished only through proper instructive lectures to the assembled patients by members of the staff and through the avoidance of discontent, homesickness, and monotony by an active administration. Patients should be provided with occupation, and that does not mean farming necessarily, but the many harmless mind-relieving what-nots possible everywhere if those in charge only give the subject the time and thought it deserves. In the majority of sanatoriums practically nothing is being done to overcome the monotonous existence which sooner or later results in the opinion on the part of the patient that sanatorium care is nothing but a housing proposition with fresh air added. This they can get at home. An active administration will do things for the benefit of the mental as well as the physical side of the patient.

STANDARDS OF EFFICIENCY

In order to accomplish results for the individual case a high standard of efficiency must be maintained. There is a strong tendency to overlook the importance of such standards, and to rely upon untrained and inexperienced staff and employees who are not only incapable of maintaining a high degree of efficiency but in many instances unable to recognize it when they see it. I quote:


EXERCISE CHART

Name

MORNING

AFTERNOON

Fig. 7. Exercise chart, recording exercise and effect on patient. Actual size, 8½ by 11 inches.

Nursing management is in many instances sadly deficient. Charts kept by nurses were often both untidy in appearance and carelessly kept. The details of the nursing care of bed patients were usually neglected—such as attention to patients' hair, food trays, condition of bed side tables, appearance of rooms, cleanliness of bed side tables, and matters concerning the personal comfort of patients. In many instances the nurses obviously did not understand the institutional management of patients.

TRAINING SCHOOL FOR NURSES

In this connection it is well to consider the responsibilities of large tuberculosis sanatoriums in connection with the training of nurses for tuberculosis service. Particularly at this time, when the entire nursing corps is being rapidly depleted by war demands, those institutions capable of giving competent instruction should establish training schools for nurses, accepting as applicants former patients with arrested disease. Under present conditions it becomes a duty as well as a privilege.

NURSING STANDARDS

An institution caring for all stages of pulmonary tuberculosis should maintain one nurse for every ten patients. This figure will vary somewhat according to the percentage of bed cases. It is rarely advisable or necessary to employ only graduate nurses for sanatorium work. With proper direction most valuable service can be obtained from those who for one reason or another have failed to complete their training. In addition to these, certainly graduates of special courses in tuberculosis sanatoriums can be relied upon—in many instances furnishing more satisfactory service than graduate nurses from general hospitals without special instruction or experience in tuberculosis nursing.

MEDICAL SERVICE

It should be insisted that those physicians in charge of the medical service in sanatoriums be full-time men specially trained in this important

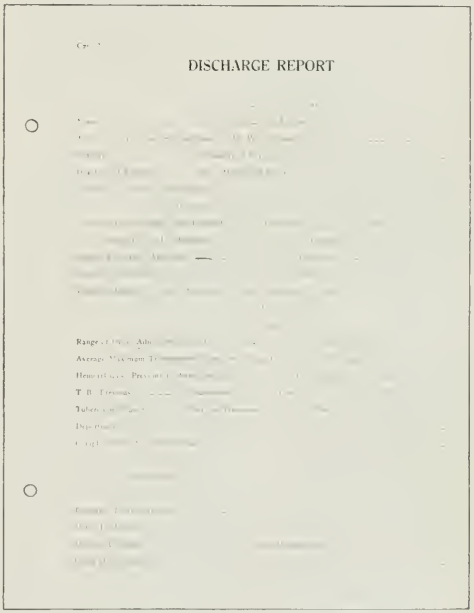

DISCHARGE REPORT

Fig. 8. Discharge report. Actual size, 8½ by 11 inches.

work. Much is written upon the subject of early diagnosis, its importance, etc., and still communities will place the medical affairs of these sanatoriums in the hands of those with no special training or fitness to hold such positions. The sanatorium should be the medical center of a community so far as tuberculosis is concerned, and the superintendent or medical director should be in a position to advise and assist the general medical profession on this subject.

The lack of proper medical supervision concerns the patients vitally. To quote:

The lack of resident physicians and the resulting lack of medical attention such as most of the patients deem necessary cause dissatisfaction from the very outset of

SUMMARY FOR YEAR ENDING

Classified According to **I. All Patients who Stayed over 30 Days**

LESION	SYMPTOMS A	B	C	Turban*	Sputum	Cases	App. Cure	Arrested	App. Art.	Quiescent	Improved	Prog.	Died	Average Residence Weeks
Incipient				I	O									
				I	†									
					*									
					‡									
Moderately Advanced				I	O									
				I	†									
				II	O									
				II	†									
				III	O									
				III	†									
					*									
					‡									
Far Advanced				I	O									
				I	†									
				II	O									
				II	†									
				III	O									
				III	†									
					*									
					‡									
TOTAL														

NOTE—* = No sputum report available
† = No tuberculin classification
Cases not reported owing to lack of information

II. Time of Residence for All Cases

CLASS	Cases	15 Days or Less	15 to 30 Days	1 Month to 3 Months	3 Months to 6 Months	6 Months to 9 Months	9 Months to 12 Months	12 Months and more	Average Residence Days
Incipient									
Moderately Advanced									
Far Advanced									
TOTAL									

III. Conditions of Sputum (Positive or Negative) for All Discharged

CLASS	Cases		Apparently Cured	Arrested	Apparently Arrested	Quiescent	Improved	Prog.
Incipient		Pos.						
		Neg.						
Moderately Advanced		Pos.						
		Neg.						
Far Advanced		Pos.						
		Neg.						
TOTAL		Pos.						
		Neg.						

(Report here Non-tuberculous cases and forms of tuberculosis not pulmonary)

IV. Results of Sputum Examinations

CLASS	Extent of physical signs according to Turban	Cases	TREATMENT	A R D 1st to	A R D 2nd to	A R D 3rd to	A R D 4th to	A R D 5th to	A R D 6th to	A R D 7th to	A R D 8th to	A R D 9th to	A R D 10th to
Incipient	I		Without tuberculin										
	I		Tuberculin over 90 days										
	I		Tuberculin 90 days or less										
Moderately Advanced	I		Without tuberculin										
	I		Tuberculin over 90 days										
	I		Tuberculin 90 days or less										
	II		Without tuberculin										
	II		Tuberculin over 90 days										
	II		Tuberculin 90 days or less										
	III		Without tuberculin										
	III		Tuberculin over 90 days										
	III		Tuberculin 90 days or less										
	‡		Without tuberculin										
	‡		Tuberculin over 90 days										
	‡		Tuberculin 90 days or less										
Far Advanced	I		Without tuberculin										
	I		Tuberculin over 90 days										
	I		Tuberculin 90 days or less										
	II		Without tuberculin										
	II		Tuberculin over 90 days										
	II		Tuberculin 90 days or less										
	III		Without tuberculin										
	III		Tuberculin over 90 days										
	III		Tuberculin 90 days or less										
	‡		Without tuberculin										
	‡		Tuberculin over 90 days										
	‡		Tuberculin 90 days or less										

NOTE—
T = Tuberculosis present
— = Absent
A = Admission
R = During treatment
D = On discharge
P = Previous to admission
‡ = No tuberculin classification

When T B were present on admission comparisons are made with regard to previous examinations. When T B were present previous to admission and also at any time during residence this is noted as present on admission

Classified According to **V. All Patients who Took Tuberculin over 90 Days**

LESION	SYMPTOMS A	B	C	Turban	Sputum	Cases	App. Cure	Arrested	App. Art.	Quiescent	Improved	Prog.	Died	Average Residence Weeks
Incipient				I	O									
				I	†									
					*									
					‡									
Moderately Advanced				I	O									
				I	†									
				II	O									
				II	†									
				III	O									
				III	†									
					*									
					‡									
Far Advanced				I	O									
				I	†									
				II	O									
				II	†									
				III	O									
				III	†									
					*									
					‡									
TOTAL														

NOTE—* = No sputum report available
† = No tuberculin classification
Cases not reported owing to lack of information

Classified According to **VI. All Patients who Took Tuberculin 90 Days or Less**

LESION	SYMPTOMS A	B	C	Turban	Sputum	Cases	App. Cure	Arrested	App. Art.	Quiescent	Improved	Prog.	Died	Average Residence Weeks
Incipient				I	O									
				I	†									
					*									
					‡									
Moderately Advanced				I	O									
				I	†									
				II	O									
				II	†									
				III	O									
				III	†									
					*									
					‡									
Far Advanced				I	O									
				I	†									
				II	O									
				II	†									
				III	O									
				III	†									
					*									
					‡									
TOTAL														

NOTE—* = No sputum report available
† = No tuberculin classification
Cases not reported owing to lack of information

Fig. 9. Annual medical report of sanatorium. Actual size, 11 by 17 inches.

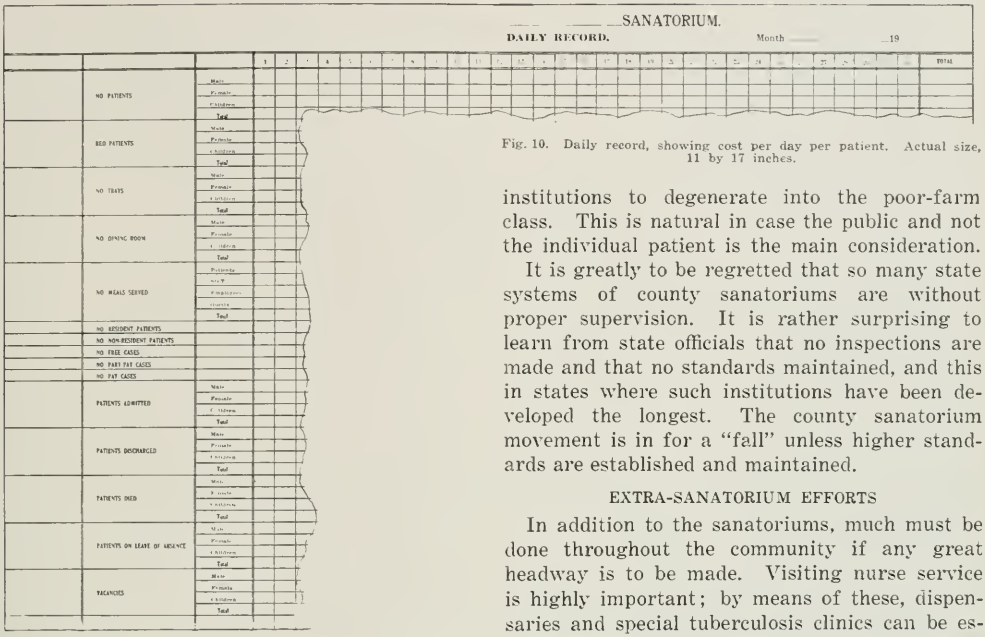


Fig. 10. Daily record, showing cost per day per patient. Actual size, 11 by 17 inches.

residence in the institution. Five institutions with a total of 322 beds (average of 64 for a sanatorium) have no resident physicians.

It seems that the usual method of providing medical service for a county sanatorium is to engage the nearest general practitioner to make regular or irregular visits to the patients. Is this satisfactory? If the patients can be induced to stand for it and the function of the institution is solely for the protection of the public and not for the benefit of the individual patient, then the visiting physician may get by with it. The only good feature of such an arrangement is the remote possibility that the physician may develop sufficient interest in the subject of tuberculosis, its diagnosis, and treatment, to enable him to develop his abilities to the further interests of the public.

CENTRAL AUTHORITY

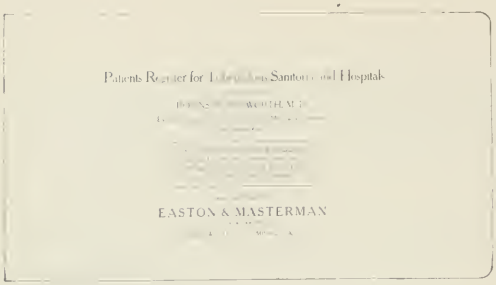
In any system of sanatoriums, if the word "system" is to be used relative to construction features and management, there must be some central authority. Some sanatoriums undoubtedly would be most efficiently conducted without state supervision—others would not. Indeed, it would be most surprising if some institutions were not improperly conducted, considering the view held by many sanatorium commissions relative to the purposes of these institutions. There is a strong tendency for small and medium-sized institutions to degenerate into the poor-farm class. This is natural in case the public and not the individual patient is the main consideration.

It is greatly to be regretted that so many state systems of county sanatoriums are without proper supervision. It is rather surprising to learn from state officials that no inspections are made and that no standards maintained, and this in states where such institutions have been developed the longest. The county sanatorium movement is in for a "fall" unless higher standards are established and maintained.

EXTRA-SANATORIUM EFFORTS

In addition to the sanatoriums, much must be done throughout the community if any great headway is to be made. Visiting nurse service is highly important; by means of these, dispensaries and special tuberculosis clinics can be established in the smallest of rural communities. In rural districts, as a rule, people are not in the

Fig. 11. Financial report to state or local authorities. Actual size, 11 by 17 inches.



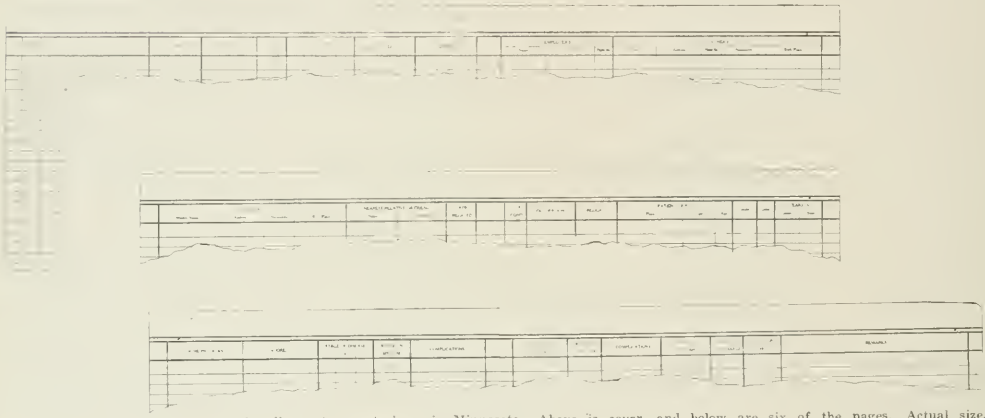


Fig. 12. Patients' register in use in all county sanatoriums in Minnesota. Above is cover, and below are six of the pages. Actual size, 7½ by 14 inches.

habit of going away from their homes when they are sick, and the establishment of a sanatorium in itself is not going to persuade these people to go there for treatment. When a majority of the tuberculous in rural districts are not even under medical supervision, special efforts must be instituted to reach them, have them examined, classified, and advised as to sanatorium or other care. In this effort the sanatorium must closely cooperate.

FOLLOW-UP WORK

By means of the dispensary nurse and physician a follow-up system worth while can be established, reaching discharged cases from state sanatoriums as well as from the county institutions. State sanatoriums should be conducted in close cooperation with county institutions. When a patient leaves the state sanatorium notice should be sent at once to the county institution in order that the follow-up work may be started immediately. By these means many releases may be avoided and money spent by the state and county saved from waste. An annual physical examination should be made by the dispensary physician and results reported to the state or county institution, as the case may be.

SANATORIUM RECORDS

Because of the fact that some sanatoriums keep no records of temperature, pulse, weight, and other important data, it would appear that there is a strong demand for a standard recording system which can be introduced in each institution in a state, not only making it possible to have records properly kept, but making them uniform throughout.

The value of the set of sanatorium records here shown lies not in their superiority over other forms, but in their use by all of the county sanatoriums of a group, thus permitting the same data to be gathered and kept regarding each patient.

The illustrations to this article give a complete set of the records used in the Granite Falls, Minnesota, Sanatorium for Consumptives, with the exception of the laboratory report, the temperature chart, the bedside record, and the weight chart, which are also used.

The laboratory chart, 8½ by 11 inches, under the heading "Urinalysis," has space for noting date, amount for twenty-four hours, color, transparency, reaction, specific gravity, urea albumen, sugar, bile, diazo reaction, and microscopical examination; under "Sputum," space for date, amount for twenty-four hours, character, tubercle bacilli (number, shape—long, short, beaded, etc.), other micro-organisms, elastic fibers, and blood; under "Blood," room for general remarks. The temperature chart, 8½ by 11 inches, permits records for thirty-one days, thus giving each patient in the institution a new chart on the first of each month. The bedside record is a ruled sheet, also 8½ by 11 inches, and upon it are noted special medications or treatments not possible to record on the regular temperature chart. Each patient's

correct standard weight is estimated on the basis of height and age at the time of admission, and his gain and loss are represented graphically upon a weight chart 8½ by 11 inches.

MEDICAL RECORDS—ANNUAL MEDICAL REPORTS

It would be of great assistance to those connected with tuberculosis sanatoriums if annual medical reports included the same data and could be procured from the several institutions. Recently we addressed communications to a large number of tuberculosis sanatoriums, of medium and small size, requesting medical reports for any period of twelve months. With a very few exceptions, we were unable to obtain any such reports, and those received contained such data that it was almost impossible to compare them.

There is much that should be included in the report other than the number of cases admitted and discharged in the several stages of tuberculosis and the results of treatment during the twelve months period. The least that a medical report should contain is information (regarding all patients under treatment for thirty days or longer) relative to lesion (incipient, moderately

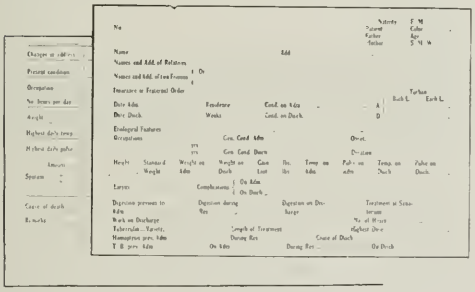


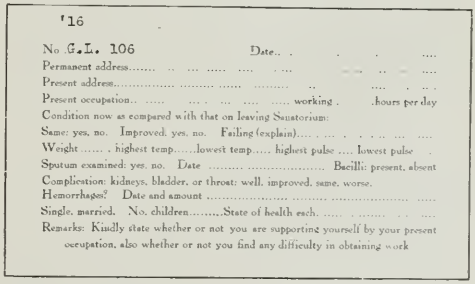
Fig. 13. Card giving data concerning each case discharged from any of the sanatoriums, which is on file in the offices of the Advisory Commission. Below is shown the reverse side of the card upon which are noted data received from ex-patients during years subsequent to their discharge. Actual size, 4 by 6 inches.

advanced or far advanced), the symptoms (A, B, and C) as classified by Rathbun's modification of the National Association classification, the Turban classification (I, II, and III), sputum (negative or positive), and the results of treatment, together with the average length of residence. Reports should also show the time of residence for all cases, classified according to the stage of the disease, showing the number discharged at the end of certain periods, such as fifteen days, fifteen to thirty days, one to three months, etc. As stated before, it is rather startling to ascertain the number discharged in less than thirty days. The condition of the sputum on admission and on discharge should be reported on for the different stages of the disease and for those taking tuberculin, etc. If the records of individual cases are properly kept, a report containing the data required in filling out the form (Fig. 9) should be a simple matter for all institutions.

FINANCIAL RECORDS

A system of accounting should be installed in all sanatoriums, permitting of such a division of the maintenance accounts as will show the cost of running each department of the institution. The financial records should be standardized for all institutions operating as part of a state system, in order that there may be no confusion due to a number of systems and in order to permit of proper comparisons being made. It is well to divide the accounts and charge the proper items to the following departments: (1) Administration; (2) Care of Patients; (3) Culinary; (4) Domestic; (5) Agriculture, Engineering, Buildings, and Grounds; (6) Traveling Expenses, Sanatorium Commission Expenses, Insurance; (7) Increase to Inventory; (8) Lasting Improvements, each department further subdivided into salaries, services, etc.

When such a report has been made covering a month's expenditure, a very simple financial report can be compiled for submission to local or state authorities, by the use of the form here shown, headed "Financial Report" (Fig. 11). It will be noted that the expenditures are classified into "Maintenance Expenses" and those chargable to "Increase to Inventory" and "Lasting Improvements." A summary is provided at the


'16

No. G.L. 106 Date.. . . . .

Permanent address..... .. ..

Present address..... ....

Present occupation.. .... working . .hours per day

Condition now as compared with that on leaving Sanatorium:

Same: yes, no. Improved, yes, no. Failing (explain).... . . . .

Weight ..... . highest temp.....lowest temp..... highest pulse .... lowest pulse .

Sputum examined: yes, no. Date .... Bacilli: present, absent

Complication: kidneys, bladder, or throat: well, improved, same, worse.

Hemorrhages? Date and amount ....

Single, married. No. children.....State of health each. ....

Remarks: Kindly state whether or not you are supporting yourself by your present occupation, also whether or not you find any difficulty in obtaining work

Fig. 14. Card filled out by former patients showing condition years after discharge from institution. Actual size, 3¼ by 5½ inches.

bottom of the report which shows the number of patient days, and from that the cost per day per patient, and the cost of meals (raw food) and the total culinary expense per meal per patient, and finally the net cost to the community after all receipts have been accounted for. Needless to say, in order to compute the cost per day, a daily record must be kept showing the total population of the institution. A loose leaf form such

as the one illustrated (Fig. 10) has been found entirely satisfactory.

If patients are admitted into sanatoriums from counties not maintaining the institution and if some patients are free and others pay, the form permits of daily records being kept of these facts as well as the number of patients on leave of absence, deaths, etc., etc.

Likewise a standard "Patients' Register" should be compiled for use in any given system of institutions. Information desired may vary in the different states. Sample pages are shown here (Fig. 12) illustrating the register in use in all county sanatoriums in Minnesota. Reference to this register usually enables one to fill out properly insurance papers, death certificates, etc., without having recourse to the other records of the case.

DATA CONCERNING DISCHARGED CASES

In order that valuable information relative to the accomplishments of sanatorium care of the tuberculous may be obtained other than that shown by the annual death rate, the Advisory Commission has on file in its St. Paul office a card (Fig. 13) giving data obtained and submitted upon the discharge of each case from all institutions caring for the tuberculous. It has been customary to address communications to each discharged patient during subsequent years to learn present conditions, ability in self-support, etc. The card upon which the data is obtained is also shown (Figures 13 and 14). Much valuable information is obtained from these discharged patients—many of them write letters of unusual interest bearing on their institutional experience and their efforts to maintain themselves in after years.

After a period of years a statistical study will be made showing the percentage of living cases, etc. The card upon which the data are obtained is in showing the permanent results of sanatorium treatment.

INDIRECT LIGHTING FIXTURE FOR PATIENT'S BED

One Fixture Serves as Reading Lamp, Night Light, and General Illumination—Easy to Operate and Care For

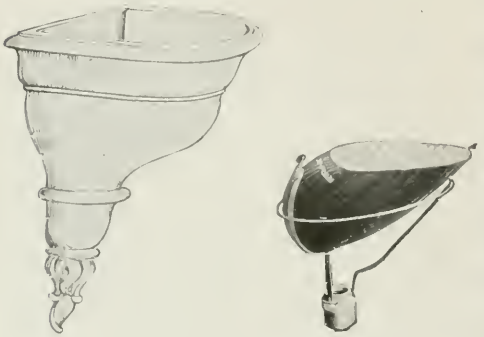
By H. V. PETTIT, Superintendent, Ottawa Tuberculosis Colony, Ottawa, Ill.

The accompanying illustration shows a light fixture which produces the best possible light for hospital use. The larger object in the illustration is the fixture which is attached to the wall; the smaller is the reflector which sits down into the large fixture, holds the light, and throws the beams upward against the ceiling.

The fixture is hung on the side wall about two feet above the head of the patient's bed. With this arrangement the patient is looking away from the light, which is a decided advantage; at the same time he has the benefit of an indirect lighting system of sufficient intensity to make an ideal reading light. For patients who wish a dim light, there is an arrangement by which it can be secured by turning a switch.

The silver-mirrored reflector is the factor which makes the wall bracket lighting so successful. It is corrugated, and directs the light from the bracket entirely to the ceiling with the illumination concentrated directly over the head of the bed.

The fixture has the following advantages: (1) it absolutely prevents glare from the light shining into the patient's eyes; (2) it eliminates the necessity for covering the lighting fixture with newspaper or cloth to get a subdued light; (3) it is easy to keep clean and can be furnished with a glass dust cover, making the unit entirely sanitary.



X-ray indirect lighting fixture and the reflector which goes inside.

WHERE OUR WOUNDED ARE CARED FOR

American Soldiers Receive Splendid Treatment During Perind of Recuperation in British Hospitals

The accompanying picture shows the bath ward of the South African Military Hospital at Richmond, England, where wounded American soldiers are being cared for. Here the treatment for septic wounds consists in keeping the patient day and night in a bath at a temperature of 98 degrees Fahrenheit.

Copyright by Western Newspaper Union Photo Service.

THE PRESENT-DAY PROBLEM OF THE HOSPITAL INTERN*

Shortage Caused by War Necessitates Complete Change in Character and Length of Service—Ideal Internship for Accomplishment of Intensive Training Outlined —Clerical and Laboratory Help of Great Assistance to Intern

By HAROLD W. HERSEY, M. D., Assistant Resident Physician, Massachusetts General Hospital, Boston

Among many other problems made more difficult for the hospital administrator by the war is the problem of securing a sufficient number of competent interns, providing them with a satisfactory service and graduating from the institution efficient, trained men. The war has multiplied the difficulties of this problem as it has every other phase of hospital administration.

The year of hospital internship allowed by the government is in many cases a shorter period than was normally outlined for the completion of the service. Consequently, at some of the hospitals it has been necessary to shorten the service considerably and to advance the men through the various grades of service much more rapidly. In other hospitals, it has been thought wise entirely to readjust the schedule, changing from a combined medical, surgical, and obstetrical service to a definite medical or a definite surgical service.

In our own case, at the Massachusetts General Hospital, our surgical service, previous to the entry into the war by the United States, was of twenty-one months' duration and divided into three-month periods, while the medical service consisted of eighteen months, also divided into three-month periods. Both services are now reduced to one year and are divided into two-month periods.

In spite of the best efforts, the various positions have been kept filled only by constant adjustment. Men on service have been called into government service. Men who were to have filled the later appointments have been called before commencing their hospital service.

This shortening of service, the changes in the curriculum of many of the medical schools, the diminishing number of applicants and the increasing need for medical men in the army and navy have necessitated changes in the duties of the interns and have not only made necessary increased application on the part of the intern, but also called for and received the best efforts on the part of the hospital to equip these young men properly.

The question naturally arises: Are you making every effort to make the term of service for your intern one of profit and to turn out well-trained, alert, capable men? Will these men be enthusiastic rooters for your hospital or will they feel, as they look back on their service, that it could have been more profitably spent? Will they be a credit to your training and a benefit to the community? What may be done to systematize their work, and what may be done to allow them to employ their time to the best advantage?

These are but a few of the questions which are being met daily, and, with the diminishing number of interns, every effort should be made to standardize their work and offer an internship which will make your hospital sought by the medical students, not only now but in the less belligerent times which will soon follow.

Just what should constitute a definite, well-balanced internship? It is obvious that it will be impossible for all hospitals to offer the same type of service. It is just as obvious that it will be impossible for all hospitals to devote the same amount of time to the instruction of their interns and equally impossible for all to offer the same advantages in equipment; but it is perfectly feasible for all hospitals to formulate an ideal internship and to approach just as near to ideal internship as it is practically and financially able.

With this definite schedule, it should be the effort of every administrator to check up the work of his interns at frequent intervals and to see that they are profiting by their opportunities to the fullest extent.

AN OUTLINE FOR AN IDEAL INTERNSHIP

As an example of an ideal service for the intern the following are essential:

1. A definite, well-planned series of duties should be so arranged that the intern begins with the more simple duties and passes, at stated intervals, to more complicated and more important ones.

2. A well-equipped laboratory should be provided, and the intern should become familiar with the routine laboratory tests, the examinations of the excreta, the sputum, blood, etc. He should have the opportunity, upon the ward visits, to see the patients from whom these specimens are obtained and to associate the physical findings with those of the laboratory. Far too many laboratory examinations are purely mechanical, and insufficient opportunity is provided for cor-

* Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, N. J., Sept. 24-28, 1918.

relation between the developments of the ward and the laboratory.

3. Upon assuming his duties the intern should be called before the administrator and carefully instructed in those duties, and should be told what will be expected of him and what will be the opportunities of return to him.

4. Following this lecture by the administrator the intern should be given a carefully prepared book of instructions and rules with which he should become thoroughly familiar.

5. Definite instruction should be provided by a competent anesthetist in the administration of anesthetics, and the intern should be supervised in this work until no risk to the patients is involved.

6. An out-patient department or dispensary should be provided for the treatment of ambulatory cases. In this department the intern should receive an invaluable training in diagnosis, a gradual approach to the more complicated treatment, an insight into the type of case more commonly met in private practice, and, what is fully as important, should become familiar with sickness from the patient's point of view.

7. A definite period of service should be provided in the emergency ward, if possible, under the supervision of a senior officer.

8. Careful instruction by a surgeon specially skilled in the treatment of fractures should be provided, with demonstration by the intern of his having grasped this treatment, including careful explanation of the importance of the early recognition of fractures, the importance of x-ray examination on borderline cases, especially on cases of head injury, and an explanation of the legal aspects of fractures.

9. Definite instruction should be given in the use of the roentgen rays and in the interpretation of the findings.

10. Training should be given in the recording of patients' histories and in the keeping of concise records, with a full understanding of their importance. The legal aspects of records should be explained and the importance of keeping from the records suppositions and trivial remarks tending to injure the hospital.

11. The staff should consist of broad-minded men, capable of and interested in the instruction of interns, and the findings of each case should be discussed and demonstrated.

12. A well-equipped pathological laboratory should be provided, an energetic effort should be made to secure post-mortem examinations, and a demonstration should be made of the pathological findings.

13. The work of an intern in any one department should be carefully checked and come up to a definite standard before he assumes the duties of the following grade.

14. Upon assuming new duties of any grade or department, there should be a careful transfer of service and a careful explanation, both of the duties to be assumed and of the condition of the patients on the service. This is especially necessary in the transfer between the junior and the senior, particularly on the surgical service. It is at such times that the seriousness of a patient's condition may not be fully grasped, that medication may be continued unnecessarily, and that stitches and packings are forgotten.

15. Opportunities should be provided the intern to do research, and he should be encouraged to avail himself of these opportunities.

16. The interns should be encouraged to hold conferences, at which papers should be presented by the different services upon unusual cases, or subjects of unusual interest.

17. A definite review of the intern's work should be made at stated intervals by the heads of the service, an explanation should be given to him of the points in which it is below standard or could be improved, and an attempt should be made to turn to him work in which he is not receiving sufficient experience.

18. The surgical intern should be required to assist at a prescribed number of typical operations and actually to perform a prescribed number of similar operations under supervision. Too frequently the intern is dependent upon the generosity of the visiting surgeon, and the actual skill and technic acquired by the interns of different services varies out of all proportion to the types of cases admitted to the services.

19. The intern is benefitted by close cooperation between the hospital and the medical school, and an attempt should be made on the part of the medical school to explain to the students the opportunities for summer work in the out-patient departments and dispensaries, as well as the possibilities of working on relief work and as assistants during school terms. A further explanation should be made of what the hospital will do for the student and what the student should do for the hospital. A series of lectures at the medical school during the school period by leading hospital administrators on hospital routine would tend toward greater efficiency, while a short elective course on hospital administration should interest students and show them the possibilities in that line of work.

20. In order to maintain the health of the interns at its best, they should have comfortable and cheerful living quarters with adequate baths

and lavatories. A rest room and a room with a piano or a billiard table furnish effective means of relaxation, while a tennis court or means of sleeping on the roof give the men the benefit of fresh air. Adequate time off duty should be provided. Two weeks' vacation during a year's period of service is not too much and gives a reward of service to which to look forward.

21. The intern should be encouraged, during his term of service, to check up the end results of his cases with a view of shortening the days of hospital treatment and putting the patient into condition to return to work as a permanent wage earner at as early a period as possible.

22. Finally, for the good of the hospitals and in justice to the intern, an attempt should be made to standardize the hospital, in order that men graduating from different hospitals may more nearly approach an equal footing and be of equal benefit to the community.

Of course, the foregoing outline is more or less an ideal or a suggestion, along which lines we are all attempting to follow, more or less closely. It is impossible at present for all hospitals to adhere to such a routine, but much may be gained by a similar schedule.

METHODS OF MEETING PRESENT DIFFICULTIES

Now, a word as to what may be done to relieve some of the present difficulties. It is obvious, as stated above, that, by changing the term of service or altering its type, it will be possible to give the men a year of intensive service. The men will, in many cases, move forward much more rapidly and will have less time to apply to their duties. To offset this, every effort should be made to make this term of service one of intense application and absorption, to see that each step counts and that less important duties are delegated to clerks or trained assistants.

Admittedly concise systematic records must be compiled by the intern, but the drudgery of this work and the time consumed may be lessened by dictating one's findings to a paid stenographer, who will type the record at a later period. Not only is time saved to the intern, but a uniform typewritten record results, in strong contrast to the illegible, hastily constructed, hand-written sheets which are frequently impossible to decipher. If funds are not available for employing such a stenographer, it is often possible to secure the services of highly educated, conscientious, volunteer workers who are eager to aid the hospital and who perform these duties in a creditable, efficient manner. Many hospitals have found the dictaphone of value, the intern dictating his observations at his leisure and the clerk subsequently transcribing the record.

In the laboratories, paid technicians may be employed to advantage. It is asserted that a certain amount of this work is absolutely essential to a man about to practice medicine. Certainly it is. But the up-to-date medical school has usually given its men a solid foundation in this work, many of the men have frequently served as substitutes or relief men during the medical training, and it is quite feasible to shorten this period of service to a considerable extent and leave more time for actual care of patients.

Furthermore, much time may be saved to the intern by having these data added to the charts and records by trained clerks rather than by having the laboratory intern pass from ward to ward consuming an hour or more daily.

It is absolutely essential that an intern should receive careful, systematic instruction in the administration of anesthetics and its subsequent application under watchful supervision. But it is equally non-essential that, having demonstrated his ability to the satisfaction of the hospital anesthetist on a stipulated number of cases, he should sit morning after morning anesthetizing patients, when there is a crying need for men capable of active, concise and rapid treatment. It is perfectly possible to secure nurses for this work, who, by thorough training, become competent anesthetists. Incidentally, by cooperation with the schools, it is frequently possible to secure medical students for a period of a month or so, who may be trained for the same work.

Some hospitals which have not previously been able to avail themselves of the services of women interns are filling some of their vacancies from these graduates. The difficulty, of course, is that few hospitals have adequate living and dining quarters for this purpose.

The question whether or not the intern should receive a salary must, of course, be decided by circumstances. Other things being equal, it is usually considered that the intern receives sufficient in the way of training and experience to more than repay for his services. In the smaller hospitals, however, where fewer cases are available, it is sometimes necessary to allow a definite salary, which, of course, appeals to the men who have reached the end of their resources, or who hope to lay aside a small amount with which to enter practice. Many good men are secured by the small hospitals through this method, who would not otherwise be obtainable.

Is the year of internship allowed by the government or the hospital year advocated by the medical schools and the state boards of medicine sufficient? From my observations, I should say that it is not. The apparent skill acquired by the

interns who train over a longer period seems sufficient to warrant a return to an eighteen or twenty-one months' appointment at the end of the war.

Many of the medical schools are conducting practically a continuous session, so that classes are graduated at different periods of the year than formerly. The hospital administrator would do well to acquaint himself with the month of these graduations and take steps to let these graduates know that his hospital is on the map and eager to use them.

SUMMARY

To summarize: During the war it has become more and more difficult to secure interns for hospital service.

In many instances it has been necessary to shorten the services or change its character entirely.

Because of the changes in services the intern should be instructed much more carefully than formerly and given a concise, intensive training.

As an aid to the accomplishment of this intensive training an ideal internship should be outlined and adhered to as strictly as possible.

By utilizing the services of clerks, stenographers, laboratory assistants and volunteer workers, by the use of the dictaphone, by the aid of nurse anesthetists and women interns, much time can be saved to the intern, and his year of hospital training can be made one of profit.

Abstract of Discussion

Dr. H. M. Hurd, Baltimore: I have been of the opinion for some time that the third-year medical student ought to have some opportunity of serving as a substitute, in order that he may prepare himself for the final year and that it may be possible for him to get more out of the final year than he would otherwise.

I think the suggestion that less time be spent on writing history is a useful one. I know several institutions where the dictaphone is in use and where, after an operation or after the ward rounds, it is possible for the medical officer to dictate what he has seen about the different cases or the steps of the operation. Then all the routine and drudgery of transcribing it and typewriting it is taken up by a worker, and I think volunteer workers might be secured for that. In many hospitals lately it has been customary for this service to be in a special division of the hospital during the entire twelve months; for example, twelve months in medicine, twelve months in surgery, twelve months in gynecology, etc. It seems to me desirable that we should give at this time of the year, under the circumstances, a divided service for the large hospitals, so that the interns may see different branches of service and be prepared to do two things—first, to be of more service to the community immediately after they leave the hospital, and to be able to do the things for which they are not especially prepared otherwise; and, second, to fit themselves for army life, where this all-around service is most essential. More attention should be given to the instruction of the intern. The intern usually comes in in a rather dilapidated condition, after his three or four years of hard service, and is sometimes inclined to feel as though he has come into an easy place, but I think he should understand that the hospital year is the hardest year of the whole four.

Dr. W. G. Nealey, Brooklyn, N. Y.: We have the one-year internship, in which a man gets surgery, medicine, and obstetrics. We have no trouble getting interns. We have nine at present. I think this is partly due to the well-rounded service which is given. Perhaps it is not so efficiently conducted as it was when we had a two-service; now, we have crowded a two-year internship into one year. Some time ago we called the interns together and asked them if they would like us to cut out the gynecology and obstetrics. They said, "No, we don't get that in the army, and we are all going into the army. That is why we come here—to get the well-rounded service."

Dr. Walker: I think that the Harlem Hospital, New York City, has the best service for a young man getting out of school that I know of. I was fortunate enough to get into Fordham Hospital. There we had a two-year service. We went in three months on the medical service, we switched over three months to the surgical, then back to the medical, back to the surgical, until our last six months. Then we elected by examination whether we would have a surgical or medical hospitalship. I think the combined service is much the best for a young graduate. If you go in and get a service that is straight medicine, you miss a lot that you would get from a surgical service, and vice versa.

Mr. John N. Norris, New York: Colonel Smith told me the intern would be allowed to secure his hospital service, and he said he must secure it practically immediately. That would mean we will have to abolish the graded service. We hadn't anticipated that, and we are planning at the Presbyterian Hospital to take our entire staff of sixteen interns on at once. Of course, that will require considerable modifications of our schedule.

Dr. Joseph B. Howland, Boston, Chairman: The ruling that we have gone on at the Massachusetts General Hospital has been that any man has sixteen months after graduation to get in his year's internship; that is, if he gets in immediately after graduation, he is taken into the army at the end of that year, of course, but a little allowance, four months, is given in which to secure an internship. What Mr. Norris says about it is quite disturbing. If we have to get it in all at once some of us will be left high and dry between the graduation. I have found, though, that many of the men in the War Department are right out of civil life; they know all of our troubles, and they are very helpful.

Provision for Additional Piping and Wiring

In these days of largely expanding ideas, there are few hospitals which will not at some time in the future require additional piping or wiring. Experience has shown that it is difficult to install such piping and wiring without seriously disfiguring and also making the cleaning of the hospital difficult. One method of looking toward the future is to drop the ceiling of the corridor about 12 inches, using suspended metal lath. A narrow and long trap door should be placed at intervals of 15 or 20 feet and always at the turns. The space above this suspended ceiling makes an ideal raceway for future piping, involving a minimum of disfigurement. It is also possible to use this space for ventilation if connected with some vertical duct. The trap doors should then be made of open grillwork.

HOSPITAL ACCOUNTING

The Journal Used for Debits and Credits Which Do Not Involve Cash—Treasurer's Journal Entries

By CHARLES A. PORTER and HERBERT K. CARTER of the Staff of The Modern Hospital

[Continued from January issue, p. 38]

THE JOURNAL

Owing to debits and credits to the General Ledger and Income Ledger which do not involve cash, and consequently cannot be posted from the Treasurer's Cash Book, it is necessary that a Journal be used to handle these transactions for future reference, including any necessary information pertaining to them. An ordinary Journal may be used that has the date, item, folio, and amount columns. Reference should be made in the Journal to the page in the General Ledger to which each item is posted.

TREASURER'S JOURNAL ENTRIES

1

Mortgages receivable	Dr.	$.....	
Bonds	Dr.	$.....	
Stocks	Dr.	$.....	
Other investment accounts (list)		$.....	
Donations unrestricted	Cr.		$..... ....
Legacies	Cr.		$..... ....

For value of same, not including accrued interest, given to the hospital; record of details, including name of donor, etc., name of stock or bond or property on which mortgage was issued.

2

Mortgages receivable	Dr.	$.....	
Investment account	Cr.		$..... ....

For value of same received in full or part payment of property sold.

3

Mortgages receivable	Dr.	$.....	
Bonds	Dr.	$.....	
Stocks	Dr.	$.....	
Other investment accounts		$.....	
General Endowment Fund	Cr.		$..... ....
Endowed Bed Fund	Cr.		$..... ....
Partly Endowed Bed Fund	Cr.		$..... ....
Other funds accounts	Cr.		$..... ....

For value of above given to these Reserve Fund accounts during month (describe in detail).

4

General Endowment Fund	Dr.	$	
Endowed Bed Fund	Dr.	$.....	
Partly Endowed Bed Fund	Dr.	$.....	
Other Reserve Fund accounts	Dr.	$.....	
Surplus and deficit account	Cr.		$..... ....

Amount charged off above account, liability of the hospital having ceased.

It is to be understood here, as in all journalizing, that the debits are given first and the credits last, and the latter indicated by the amount being set to the right.

5

Partly Endowed Bed Fund	Dr.	$.....	
Endowed Bed Fund	Cr.		$..... ....

Accounts transferred from Partly to Endowed Bed Funds owing to completion of endowments during month.

6

Buildings and real estate	Dr.	$.....	
Furniture and fixtures	Dr.	$.....	
Apparatus and instruments	Dr.	$.....	
Equipment, etc.	Dr.	$.....	
Capital account	Cr.		$..... ....

For expenditures as shown by voucher register and reported by the Superintendent for the month.

7

Buildings and real estate	Dr.	$.....	
Furniture and fixtures	Dr.	$.....	
Equipment, etc	Dr.	$.....	
Capital account	Cr.		$..... ....

Value of above received during the month if capitalized.

8

Investments	Dr.	$.....	
Buildings and real estate	Dr.	$.....	
Furniture and fixtures	Dr.	$.....	
Equipment, etc	Dr.	$.....	
Surplus and deficit account	Cr.		$..... ....

For profit on sale of such property above its book value.

9

Surplus and deficit	Dr.	$.....	
Capital account	Dr.	$.....	
Building and real estate	Cr.		$..... ....
Furniture and fixtures	Cr.		$..... ....
Equipment, etc	Cr.		$..... ....

Loss due to fire or sale on above during the month.

10

Depreciation reserve	Dr.	$.....	
Buildings	Cr.		$..... ....
Equipment	Cr.		$..... ....
Etc	Cr.		$..... ....

For reserve for depreciation and repairs on capital property.

11

Surplus and deficit account	Dr.	$.....	
Mortgages receivable	Cr.		$..... ....
Bonds	Cr.		$..... ....
Stocks	Cr.		$..... ....
Other investments	Cr.		$..... ....
Loans or notes receivable	Cr.		$..... ....

Loss or depreciation charged off during the month on account of sales or a basic change in values.

12

Surplus and deficit account	Dr.	$.....	
Treasurer's accounts receivable	Cr.		$..... ....

For such accounts charged off as uncollectible during the month. List each account separately.

13

Loans and notes payable	Dr.	$.....	
Loans and notes payable	Cr.		$..... ....

For renewals of above during the month. List each on one side only—usually the debit side is used.

14

Treasurer's account with Superintendent	Dr.	$.....	
Hospital earnings	Cr.		$..... ....

Amount of Superintendent's bills receivable and other hospital earnings as shown by his report for the month.

15

Treasurer's account with Superintendent	Dr.	$.....	
Surplus and deficit account	Cr.		$..... ....

Surplus amount of general material on hand as shown by Superintendent's report.

16

Surplus and deficit account	Dr.	$.....	
Treasurer's account with Superintendent	Cr.		$..... ....

Grand total current and capital expenditures as shown by the Voucher Register—list later. Superintendent's accounts receivable charged off during the month as reported by the Superintendent. Loss and depreciation of general materials as reported by Superintendent. (See Schedule 1.)

17

Grand total current revenue for month:			
Hospital earnings	Dr.	$.....	
Donations	Dr.	$.....	
Donations unrestricted	Dr.	$.....	
Legacies	Dr.	$.....	
Legacies unrestricted	Dr.	$.....	
Income investments in General Endowment Fund	Dr.	$.....	
Endowed Bed Fund	Dr.	$.....	
Partly Endowed Bed Fund	Dr.	$.....	
Special funds (list)	Dr.	$.....	
Appropriations from special funds for current expenses	Dr.	$.....	
Miscellaneous	Dr.	$.....	
Surplus and deficit	Cr.		$..... ....

Amounts transferred from above to surplus and deficit account during the month.

18

Treasurer's accounts receivable	Dr.	$.....	
Income	Cr.		$..... ....
Reserve funds	Cr.		$..... ....
Other revenue or income accounts	Cr.		$..... ....

For amounts accrued during the month and remaining unpaid.

19

Capital account	Dr.	$.....	
Hospital land and buildings	Cr.		$..... ....
Equipment	Cr.		$..... ....
Machinery and tools	Cr.		$..... ....
Apparatus and instruments, etc	Cr.		$..... ....

For book value of sales as per Individual Ledger accounts.

20

Mortgages receivable	Dr.	$.....	
Mortgages receivable	Cr.		$..... ....

For renewals of mortgages (give details).

In case the Treasurer of a hospital has to open a set of books for the reason that a new institution is being started, he will have to make the following Journal entries:

1

Subscriptions	Dr.	$.....	
Capital	Cr.		$..... ....

For amount of subscriptions guaranteed by individuals (the names and amounts appearing on the subscriptions list).

2

Stocks	Dr.	$.....	
Bonds	Dr.	$.....	
Subscriptions	Cr.		....

For the amounts paid in by the subscribers.

[To be continued.]

Planning for the Hospital Laundry

In planning for the hospital laundry, in fact for any laundry, it is desirable to test the water for lime and magnesia. If these are present in considerable quantities it will be apparent from the hardness of the water and it will be worth while to look into one of the systems of "water-softeners" which are in vogue for the treatment of alkaline waters.

The saving in soap and washing compounds will amount to quite a tidy sum in the course of a year, if the water is treated to remove the lime and magnesia, and in addition the linens, woolens, and other laundry will have their lives of usefulness extended quite materially. Woolens will come from the laundry soft and with a minimum ot shrinkage if washed in water from which the alkali has been eliminated.

Packing the Wringer

In the packing of a centrifugal wringer or extractor, the mere fact that its mechanism is balanced from the center indicates that the placing of the clothes must be done evenly so that the weight is maintained equally throughout. The best way is to lay the articles easily around the bottom and side. When the wringer is started, it will then adjust itself unless the weight is much overbalanced in some place, in which event, of course, you run the risk of an accident. The principle of extracting the water is that of throwing the articles against the sides, which are full of perforations, so that the centrifugal force of the motion drives the water through.

He who can take advice is sometimes superior to him who gives it.—Von Knebel.

LITTLE JOURNEYS TO PLACES AND PEOPLE WORTH KNOWING

The Eighth Little Journey—To the Hospital for Ruptured and Crippled, New York—Crippled Children and Uncle Sam's Wounded Soldiers and Sailors Share Its Advantages Today

By MARGARET J. ROBINSON, R.N., Field Editor, The Modern Hospital, Chicago

THE Hospital of the New York Society for the Relief of the Ruptured and Crippled must have been built by an architect who loved children. Such, at least, is the testimony of its wonderful roof gardens and school rooms where these small, twisted pieces of humanity grow stronger in the light and air, high above the dirt and crowd of New York's East Side.

The history of the origin and progress of the hospital tells that as far back as 1842 the distinguished surgeons and philanthropists of New York realized the necessity of hospital facilities for ruptured and crippled children, and an organization known as "The Society for the Relief of the Ruptured and Crippled" was finally started in 1863.

Some of the best people in the city of New York became interested in the work, and year by year, stone on stone, the hospital has grown apace with the need for the work to be done. Dr. James Knight was the founder of the institution. After his death in 1887, Dr. Virgil P. Gibney, who has been for thirteen years the resident assistant, was made the surgeon-in-chief and still heads the staff. Dr. William T. Bull and other surgeons of national reputation have been chiefs of departments of the hospital.

At present writing the hospital has departed from its usual policy of treating only crippled children. Several of its great sunlit, airy wards and a part of the roof garden are filled with soldiers and sailors, and will be until the government has completed its military hospitals.

In the basement of the Hospital for Ruptured and Crippled is perhaps the most complete hospital workshop in this country for the making of orthopedic apparatus. Ten skilled workmen and five skilled workwomen are forging and welding.

Fig. 1. Present building of the Hospital for Ruptured and Crippled, 302-325 East Forty-second Street, running through to Forty-third Street, New York. It is designed in the Renaissance style of northern Italy.

and working on the leather and canvas to make the braces, splints, hammocks, supports, bandages and other orthopedic appliances used to make crooked backs and limbs straight again.

ical and passive manipulation of anesthetized muscles and stiff joints.

The plaster room is one of the interesting features of the work with the crippled patients.

Fig. 2. Waiting room of the out-patient department. It is designed with a cross-vaulted ceiling and has a quarry tile floor with a marble border and base. The painted decoration of the room is such as to interest children as well as those of more developed taste. High windows on the north and south give an abundance of light and natural cross ventilation. At the back of this room is a space enclosed with a counter where the registrar, admitting clerk, and cashier have their desks during clinic hours. Either side of this counter are wide doors, the one on the right leading to the hernia department and the one on the left to the orthopedic department. The registrar on duty at the desk thus has control of the dispensary patients.

In another part of the basement is an exceptionally well-equipped laundry. The work turned out is spotless. Here and there among the laundry workers were a half-dozen convalescent sailors washing and ironing their own clothes. I believe that Uncle Sam's jackies are the cleanest men afloat or ashore. They wash even their dark blue flannel blouses and trousers and hats at stated intervals, and the white clothes are scrubbed with a brush and rubbed daily. If no irons are available, Jack rolls his clothes tightly while they are damp in just a certain way to bring them out smooth and dry again.

The radiographic department of the hospital is unusual in its equipment and accessories, as it must be, of course, to make plates of the fine detail necessary to the orthopedic surgeons in this work. There is a hydrotherapeutic department with a graduate nurse of specialized training in charge of the work done. A Zander room contains all the necessary apparatus for mechan-

Fallen arches and clubbed feet, crooked spines and congenital hip dislocations were being cast into normal shape by the skilled hands of surgeons and nurses. Even the woman attendant who was mixing the plaster paste worked quickly and accurately. The paste she made was as smooth as butter.

There is a floor for girls and a floor for boys—crippled girls on one floor and crippled boys on the other. Not many of them were in the beds, however, as orthopedic cases are usually ambulatory or use wheeled chairs. Some of the poor little mites were reclining or strapped to tray-like contrivances on wheels to keep their sick spines stationary and to give them their chance to heal.

Each floor has its dining room with long, low, narrow tables easily reached from small wheeled chairs.

The school room is a great room with windows all around and frescoes of children dancing through fields. In the evening, when school for

the small folks is not in session, this room is used as a concert hall. The Woman's Committee of the Council of Defense and other organizations provide entertainment here for the convalescent soldiers and sailors.

The children's school is in session each morning of the school year. It is in reality one of the grade schools of the city of New York, half of its expense being paid by the city and half by the hospital organization. There are six teachers. The children spend the mornings in the schoolroom and the afternoons out of doors on the roof. Twice each week those who can go are taken about the city and parks in large motor buses.

In several of the large wards on the upper floors and on a greater part of the roof were soldiers and sailors. Most of them were up and about. Some were in for corrective surgery or treatment; only a few seemed very sick, and everyone else was having a good time. The nurse in charge of the roof wards was one of the Home Defense graduates. She was married, her husband was in service, and she was doing her share to help us win by taking the place of a nurse who had gone overseas. These nurses retired from active service who have enlisted for home defense are giving splendid help in this way.

Volunteer aids, women who have taken courses in nursing to help with the present needs, are giving several hours a day to help in various ways in the hospital.

In one of the ward beds was a poor lad with a tubercular bone condition, who suffered horribly at times from cramps in his feet and legs. As we came into the ward I saw a group leaning over his bed. There were two jackies, a marine, and two nurses. The bed was spotless and on the white pillows were little red crosses. Each one of the group was endeavoring in some way, by moving a pillow or a hot-water bag, or by rubbing the tortured limbs, to help the boy to bear the acute attack of pain.

We came down in the elevator just as it was time to bring the children from the roof to their wards again for the supper hour. When we got off at the third floor, we saw small girls hobbling out on tiny crutches, one braced on both sides up to the shoulders, and some just limping a little. Then came three big jackies tenderly carrying three white-looking kiddies that couldn't walk.

Fig. 3. The roof garden, overlooking the river, high above the dirt and crowds of New York's East Side. It is divided by a solarium into two sections, one for the boys and the other for the girls. A large part of each section is roofed so that patients may be out even in the most stormy weather. The masonry parapet is kept low for the children to see over, and a wire mesh screen is built above it for protection. Meals may be served on the roof from the pantries on this floor.

Fig. 4. Christmas is truly Christmas to these tiny inmates of the hospital who were snapped at an interesting moment in their Christmas entertainment.

Crippled boys and girls, soldiers and sailors, army officers and navy officers, civilian physicians and superintendents, nurses and employees, all are living and working together with the spirit of unselfishness which these times are bringing to the surface in all of us.

The Neurological Services of the Territorial Zone

All soldiers of the Italian army who are found suffering from injuries of the nervous system are sent from the battle front directly to two large neurological centers, one at Bologna, the other at Milan. From these collecting centers each patient is sent to the neurological center of his home province for treatment and reeducation. But frequently many "nervous patients" are overlooked in the front, as well as in the territorial hospitals, the general physicians failing to make the proper diagnosis. For these cases G. C. Riguier, writing in the *Policlinico* of Rome, proposes that the directors of the collecting centers should appoint specialists who pay regular visits to all the front and territorial hospitals and examine all patients with nerve lesions.

Experience during this war has shown that prosthesis is of prime importance for the treatment of peripheral nerve lesions, as well as for professional reeducation. The French neurologists early recognized the importance of this feature, and have obtained remarkable results by early rational treatment of such cases. Many deformities resulting from peripheral nerve lesions are due to the want of prosthetic appliances. The prosthetic appliances should not only correct an improper position, but should gradually enable the patient as much as possible to make use of the paralyzed member.

The French Surgical Hospital at Kiev

This hospital was organized in France and sent in May, 1917, by way of England, Archangel, and Petrograd to Kiev. The Russian revolution was then in full swing, and, instead of being assisted in their undertaking by the people of Kiev, the Frenchmen were treated with suspicion and even hostility. But the intrepid French surgeons did not permit themselves to be discouraged. With the aid of the Russian Red Cross, they obtained the necessary buildings in which they established their hospital. During all the changes of the revolution, and while the city was bombarded by the Bolsheviki and fighting was going on in the streets of Kiev, the hospital has diligently carried on its work of humanity, tending to friend and foe alike. The surgical service was crowded. It had two separate divisions, an aseptic and a septic division in separate buildings. Carrel's famous method of wound treatment was applied in all cases. The personnel of the hospital has lately returned to France. It is fully described by L. Saue, writing in the *Presse médicale* of Paris.

A homelike atmosphere can be brought about by making the bedside stand attractive. This table is near the patient and makes up a part of her world for the time being. Place her flowers, books, and gifts where she can see them. —Marie Robertson, R. N., in The Nurse.

FROM OUR FIELD EDITORS' NOTEBOOKS

Light and Air Characterize the Rhode Island Hospital—Wesson Memorial Hospital Well Equipped for Its Active Surgical Service—Successful Cooperative Health Department of the Tri-Cities of Illinois, LaSalle, Peru and Oglesby—Beautiful Location of Ottawa Tuberculosis Colony and Illinois Valley Hospital—LaSalle County Opens First New County Sanatorium Under New Law

Rhode Island Hospital, Providence, R. I.

I had only a brief two hours to spend at this well-known hospital, but I saw enough to make me want to come back for a visit of several days, in which to gather information to pass on to the readers of THE MODERN HOSPITAL.

Dr. John M. Peters, the genial and experienced superintendent, has been with the institution for twenty-five years and is thoroughly grounded in hospital administration.

In spite of the fact that the Rhode Island Hospital is located in the midst of a thickly settled part of Providence, the buildings have an abundance of light and air, for the hospital site comprises about twenty-seven acres of ground. As Dr. Peters took me about the building, I received the impression of spaciousness and solidity of construction. The halls are wide, the wards are large, and the operating rooms, of which there are five, are all spacious. Dr. Peters called my attention to the hardwood maple floors in some of the wards, and to the fact that they had stood the ceaseless wear and tear of fifty years remarkably well. One who did not know might have thought that they had been laid but five years ago.

It was interesting to note how square corners were eliminated in the wards which were constructed as early as fifty years ago, both in the intersections of the walls and the intersection of the walls and ceiling.

The hospital has a large surgical service; 4,781 operations were performed last year.

Dr. Peters expressed especial satisfaction in the way they had been able to transform into a children's pavilion what had been the contagious pavilion, before the Providence City Hospital was constructed. The room where the babies are bathed is especially well arranged and equipped to expedite the work done there.

Fig. 1. Beautifully situated by the water's edge among the trees of Providence is the Rhode Island Hospital. Another view is shown on the cover page of this issue.

In order to keep track of patients needing social service, the admitting office and social service workers together decide, at the time a patient is admitted to the hospital, whether or not he is or is likely to become a social service case, and the decision is recorded on the medical record. The social service department also keeps a card file of its patients. This enables social service workers to keep in touch with the patients while at the hospital and often obviates the embarrassment of having a patient thrust upon the social service department for care, without previous notice, on the day of his discharge.

Wesson Memorial Hospital, Springfield, Mass.

What is now the Wesson Memorial Hospital of Springfield, Mass., was originally incorporated in 1900 as the Hampden Homeopathic Hospital. In 1906 its name was changed to Wesson Memorial Hospital, in honor of Mr. D. B. Wesson, who donated the funds with which the present building was constructed. The hospital is housed in a single four-story building of attractive design and very substantial, not to say costly, construction. The window sills are all made of Tennessee marble, and all woodwork is quartered oak. Curved lines prevail throughout.

The hospital has a maximum bed capacity of one hundred and three beds, only seventy-seven of which are now in active service. The service is largely a private-room service. There are, however, a few small six-bed wards. Dr. J. H. Carmichael, the surgeon-in-chief, told me that, could the hospital be rebuilt, he would urge the allotment of more space to wards.

Fig. 2. In the "sun bath pavilion" these tiny inmates of the Rhode Island Hospital receive the best of treatment, for the hospital is especially equipped to care for them.

The hospital has a very large and active surgical service. For this work it is well equipped. In fact, few hospitals of the size of the Wesson Memorial Hospital can boast of so complete, substantial, and up-to-date appointments in their operating suite.

Although the staff members belong to the homeopathic school of medicine, any physician of good regular standing, licensed to practice his profession, is allowed the privileges of the hospital and may treat any private patient therein.

A nurses' training school is connected with the hospital. It now has a student body of forty, housed in what was formerly the hospital and part of the upper floor of the present hospital. The nurses receive their obstetrical training through affiliation with the Wesson Maternity Hospital near by.

The Hygienic Institute of LaSalle, Peru, and Oglesby, Ill.

The three small manufacturing cities of LaSalle, Peru, and Oglesby, in the north central part of Illinois, are situated in one township and form practically one community. Their population is largely foreign, and their health problems are much the same. They have jointly about twenty-six thousand inhabitants (LaSalle, over twelve thousand; Peru, nearly nine thousand; Oglesby, about five thousand). In the ordinary course of events, each would probably have a so-called part-time health officer, paid about twenty-five dollars a month, and worth something between twenty-five dollars and twenty-five

Fig. 3. The Hygienic Institute which serves three cities in Illinois. Here the inspection of milk and water, of sputums for tubercle bacillus, and of cultures for diphtheria take place, and infant welfare conferences are held.

cents. By extraordinary good fortune, however, the La-Salle-Peru-Oglesby community is the proud possessor of a really functioning health department which it believes to be unique, not only in the United States but in the world. The following is the story told me by Dr. Edmund Weis, the health commissioner and director of the Hygienic Institute of LaSalle, Peru, and Oglesby:

Something over five years ago, a citizen of the community, the late F. W. Matthiessen, was guided to make public benefactions in a rather original way. As a part of a comprehensive scheme of community welfare work, he endowed a health center or Hygienic Institute, whose director, by agreement with three cities, serves them all as health commissioner. The trustees of the Hygienic Institute, which is legally organized as a private corporation, appoint the director, thus affording the singular phenomenon of a public official supported by private funds and appointed by private philanthropy. In order to give the arrangement legal standing, the mayor and city council in each city appoint a resident of that city to serve as assistant health officer; but, to keep these appointments out of politics, the right of nomination is con-

Fig. 4. The Isolation Hospital of La Salle, Peru, and Oglesby is a fireproof, two-storied brick structure, built to accommodate twenty-eight persons. Special trained nurses are in charge of the patients.

ferred by ordinance on the director of the institute. Besides the director-commissioner and his three assistants, the staff includes three school nurses, one for each city, an infant welfare nurse, a full-time bacteriologist, a part-time dentist, an operator for removal of tonsils and adenoids, and a stenographer.

The institute is housed in a former residence, selected because of its central location with reference to the three municipalities. It provides room for the director's office, the institute's library, a bacteriological laboratory, a dental clinic, an infant consultation room, with the office of the infant welfare nurse adjoining, and two emergency operating rooms. The "plant" of the tri-city health department also includes a twenty-eight bed isolation hospital in Peru.

The activities of the Hygienic Institute Laboratory include inspection of water and milk, of sputums for tubercle bacillus, and of cultures for diphtheria. The infant welfare department (known as the Emma Matthiessen-Chancellor Memorial) holds infant welfare conferences twice a week, at which babies are weighed and measured. Follow-up-work is done and individual instruction given at the homes. Modified milk is given to all needy cases. A prenatal clinic is planned. School medical inspection is made of children in the second, fourth, sixth, and eighth grades, and records are kept at the director's office at the institute. All of the services of the institute are free to anyone with an income of less than eight hundred dollars a year.

The officers of the Institute have raised the standard of enforcement of local and state health laws. As only one example of the work they are doing, a pamphlet published by the La Salle-Peru Township High School says:

"A year ago about two-thirds of the milk delivered in La Salle, and at least three-fourths of that delivered in Peru, was dipped from cans on open wagons, in the street. No attention had been paid to dairy inspection, and no bacteriological or chemical analyses of milk were made. At present all milk delivered in La Salle is bottled in

Fig. 5. Partial view of the building and grounds of the Ottawa Tuberculosis Colony. From a modest beginning as a "tent colony" it has become a fully equipped institution affording every facility for the treatment of tuberculosis.

sterilized bottles and pasteurized, and approximately one-third of the supply in Peru is bottled. In Oglesby practically the entire supply is delivered in bottles. All dairies are systematically inspected and scored and the product from each dairy is subjected to a bacteriological and chemical analysis at least twice every month."

The first question which naturally arises is: How does the arrangement work? The people of LaSalle-Peru-Oglesby are like the lilies of the field so far as their health department is concerned. Do they respond to its benefits, and do not complications arise from the administration of a public office by a private philanthropic corporation? Dr. Weis tells me that it works well—that the people respond appreciatively and that the private practitioners of the community welcome the cooperation of the institute.

The Ottawa Tuberculosis Colony and the Illinois Valley Hospital

These two institutions are under one management. The Ottawa tuberculosis colony is about fifteen years old and was the first tuberculosis institution, Mr. H. V. Pettit, the superintendent, tells me, absolutely to disregard climatic considerations in the selection of a location. If climatic considerations have been disregarded, scenic considerations have not, for the situation, nearly across the road from the new LaSalle County Tuberculosis Sanatorium and directly overlooking the Illinois River Valley, is superb. Moreover, it is near enough to and far enough from the city of Ottawa to combine the convenience of the city with the hygienic advantages of the country. The institution comprises sixty-five beds, and the buildings include a club house, medical building, bath house, and tent cottages. Especial attention is paid to the amusement and entertainment of the patients, and the colony is very well equipped to provide moving pictures, concerts, holiday celebrations, amateur theatricals, indoor games, and the lighter outdoor sports, such as croquet, amateur photography, modified golf, boating and walking parties.

The Illinois Valley Hospital, of fifteen beds, is intended as the nucleus of a modern community diagnostic center, to which the practitioners of the surrounding region may bring their different cases for examination by specialists with all the advantages of up-to-date diagnostic equipment. Like a good many other plans, this has been partially halted by the war. On the physical side, the ruling idea in this hospital and the tuberculosis colony has been to get as far away as possible from formal institutionalism, and the result has been some very interesting and attractive features in furnishings and equipment. These include a moving picture machine on the balcony of the dining room, the indirect lighting fixture more fully described on another page; tinted walls and

Fig. 6. The club house is the social center of the Ottawa Tuberculosis Colony. In it are located the dining room, lounging room and library, business offices, sanitary kitchen, store room, and cold storage plant.

cheerful colored hangings in the patients' rooms, rubber-tired wheels on all beds so that they can be readily moved out on the sun porches, and little conveniences like an electric attachment permitting a patient to make her own toast for breakfast in her room if she desires.

Ryburn Memorial Hospital, Ottawa, Ill.

The present twenty-five bed edifice of Ryburn Memorial, the municipal hospital of Ottawa, has long been quite inadequate to the demands made on it, and a bright, attractive sixty-bed hospital building is now nearing completion. This new building is being erected by the city of Ottawa and a bequest of Mr. Solomon E. King, and is therefore to be called the King Annex.

One of the pleasant features of the plan is an arrangement to make use of the roof for the benefit of patients. This is especially desirable, as the building is in the heart of the town. The elevator runs to the roof. The present hospital building will be used as a nurses' home when the new building is ready for occupancy. Ryburn

Hospital has fifteen pupil nurses in training; it affiliates with the Chicago Lying-in and Annie Durand Hospitals. Miss Elizabeth Asseltine, the superintendent, showed me eleven stars on its service flag for nurses now under the colors—an exceedingly good showing for this small institution. The hospital has recently received from Dr. Edmund Weis of Ottawa, now director of the La Salle-Peru-Oglesby Hygienic Institute, the gift of his entire medical library.

The LaSalle County Tuberculosis Sanatorium

LaSalle County is to have the honor of opening this month the first of the new county tuberculosis sanatoriums authorized under the new law described on page 128 by Dr. George T. Palmer. The buildings include an administration building, a fourteen-bed pavilion for ambulatory patients, with provision at present for twenty beds, but capable of enlargement to a capacity of thirty beds. The dining room, which is in the administration building, has a little stage at the rear, so that on occasion it can be used as an auditorium or amusement theater. In order that the patients may feel that no fear is felt of them, it is planned that the nurses and officers will eat in the same room with the patients, but at different tables. Separate china and other table ware is to be used by patients, and it is to be washed separately from that of the nurses. Each bed-fast patient is provided with a room

Fig. 7. The La Salle County Tuberculosis Sanatorium, the first Illinois county sanatorium to be opened under the new law.

of his or her own, and the entire aim of the architect, Mr. Jason Richardson, has been to make the surroundings home-like and cheery to patients, with nothing suggestive of cold institutionalism, still less of the "charity" taint. The location on the wooded heights just outside the city of Ottawa and above the Illinois River is beautiful. I was out here on one of those days when the mercury seems to have run out of the bottom of the thermometer. The heating plant was only beginning to get to work, but the infectious enthusiasm of Miss E. D. Miller, the superintendent, was almost enough to warm the place by itself. LaSalle County apparently is to have a sanatorium in which it can take pride.

Rhode Island Organizes to Control Venereal Disease

The campaign for the control of venereal disease in Rhode Island is being prosecuted vigorously. Present plans call for the establishment of seven clinics throughout the state: Three in Providence—at the Rhode Island Hospital, Providence City Hospital, and St. Joseph's Hospital—and one each at the Newport, Woonsocket, and the Pawtucket Memorial Hospitals. A clinic is also to be established at Westerly but not at a hospital. Five of these have already been opened and the other two will probably be opened by the time this item is published, the staffs having already been picked. A syphilis clinic has been running several years, at the Providence City Hospital, but the work is being enlarged.

Dr. Harry Kimball, acting assistant surgeon, and chief of the venereal disease division of the state of Rhode Island, is developing the state's program as rapidly as possible. As in other states, arsphenamine is furnished free by the United States Public Health Service. Every effort will be made to make these clinics self-supporting.

The New Great Hospital of Rome

The Board of Hospitals of Rome has approved the plans for the construction of a new large hospital. The new institution will be erected in the western suburbs, on the heights of the Trastevere, a most favorable situation connected by street-car lines with all parts of the city. This hospital will have a capacity of 1,200 beds and will greatly relieve the crowded conditions of the Italian capital.

These plans are described in a recent number of the *Policlinico* of Rome.

The Scholastic Instruction of the Wounded in the Biffi Pavilion

The Biffi pavilion was set apart for wounded and crippled soldiers. As many of these lacked an elementary education, a school with six classes was established, in which, besides the common branches, French was taught. The teachers were all women. The soldiers showed a remarkable diligence and interest and acquired an elementary education in a few months. At the close of the course an examination was held, and diplomas were given to the attending soldiers. This work is described by E. Medea in a recent number of *Ospedale Maggiore* of Milan.

This picture shows the Broken Hill and District Hospital, Broken Hill, Australia. According to the thirty-first annual report there are 154 beds in this hospital, an accommodation no more than sufficient to cope with the demand. The out-patient department cared for 8,254 patients in one year. The surgeon superintendent is Dr. Melville Birks.

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Aims and Ideals in Hospital Administration

It is part of the American character to look ahead and to strive to advance. In these characteristics our hospitals share. Many American hospitals are well administered; all have their eyes turned toward the future and are seeking to improve, but in their search for improvement are guided by diverse principles. The perfect hospital does not exist—indeed, it is scarcely within the range of hope, for American idealism is tempered with common sense. But in one respect or more, nearly every hospital does strive for perfection. There are hospitals that seek to be perfect hygienically; there are others which aim to be the last word in scientific progress; still others seek perfection in economy of administration, in clinical service, in orderliness, in progressiveness, or in functioning, with the aid of their social service departments, as social institutions.

It was Florence Nightingale who led the van in the fight for hospital hygiene. She did not, at first, ask much—only that hospitals should not so far neglect the elements of decency and cleanliness that patients who entered the wards for treatment were likely to be injured instead of benefited. "It may seem a strange principle to enumerate as the very first requirement in a hospital that it should do the sick no harm," she wrote; and then went on to explain that "it is necessary to lay down such a principle, because the actual mortality in hospitals is very much larger than the mortality of the same class of disease among patients treated out of hospitals." Today such a statement is an anachronism. Hospitals may not confer on every patient every conceivable hospital benefit, but they are no longer evil instrumentalities—they do help most of their patients, and they may fairly claim that the sick in their wards are better cared for than the sick of the same social class or classes who are treated, or neglected, as the case may be, at home. High hospital mortality in the old days—not the "good" old days, by any means—was largely due to lack of hygiene, a fault for which hospital administrators and hospital clinicians were both responsible. But while modern hospitals are clean and modern surgery is aseptic, the hospital which takes especial pride in its cleanliness, and the surgeon who is doubly strict in the maintenance of aseptic technic in operating rooms and wards, approach a bit nearer to the ideal of hygiene than the average. Of them Florence Nightingale would heartily approve.

The ideal of scientific progress is commonly thrust aside by the small and impecunious hospital, as a thing which cannot be realized except through the establishment of huge laboratories, costly to build, costlier to maintain, and hence beyond ordinary reach. Yet some of the greatest discoveries recorded in the history of medicine are credited to observers who worked without lavish endowment or elaborate equipment. The scientific spirit, composite of modesty, curiosity, industry, originality, keenness in observation, and thoughtfulness, is thoroughly at home in the modern world and will reveal itself equally whether housed in the simplest hospital surroundings—in the private sick room, in a ward supplied with a few instruments of precision, or in the giant research institute, nine parts laboratory and one part hospital. It is a spirit which every hospital should stand ready to applaud and to support, for it is the greatest of humanity's servants.

Orderly all hospitals should be, but the hospital in which the ideal of order is permitted to crush all individuality and to place form and record above timely deed and sympathetic service, ceases to be a healthy hospital. In the realm of order, the civil hospital may, perchance, learn from the military—learn the value of moderation as well as of order, for it has been said that the major fault of some of our military hospitals is that they stress too heavily both discipline and order, and glorify paper work even to the point of sometimes forgetting the obvious needs of the sick. Of order hospitals need enough; of regulations, some; of

the will to serve in kindness and generosity, a constant and inexhaustible supply.

Economy is an excellent guiding principle in hospital administration, and a necessary element in all good management. Economy, however, is a negative, not a positive principle—it tells us what to avoid but not what to do. The enthusiastic economist who builds a wooden barrack and calls it a hospital will not be praised by the community when the building burns down and the inmates lose their lives. The alleged economist who hates to buy microscopes, who knows the cost but not the value of access to the open by means of balconies, who thinks one nurse equal to two, or who endeavors to save by compressing the period of surgical convalescence into the cruel compass of a single day, is guilty of reckless and inhumane extravagance. The proper field of a hospital economist lies entirely above the bed-rock of necessary and useful expenditure. Every hospital needs an administrator who is eager to spend as well as a committee on expenditures who want to know his reasons. Economy is but one of the ideals of hospital administration; its proper place is a subordinate one.

What, then, is to be the uppermost aim in hospital administration? Simple efficiency—the product of many factors, among which are buildings properly planned; an organization fittingly conceived; a medical staff wisely selected; a nursing staff generously composed, decently housed, and constantly instructed; an adequate household service; a board of managers and a superintendent fired with the spirit of service; a community cognizant of its needs and imbued with its responsibilities. With these essentials as a beginnng, a hospital can be made which will select its patients wisely and will deal with them justly.

S. S. GOLDWATER.

The Scientific Rigors of the Law

A certain alienist on the staff of a large psychopathic hospital is quoted by the newspapers of his city as declaring that a most effective way of lessening crime would be to hang vicious criminals. "I'm not advocating this, and am stating it merely as a suggestion of what was accomplished in the old English days to do away with crime. . . . Under the old English law there were one hundred and sixty-five crimes punishable by death. It seemed to keep down crime."

Perhaps if we could hang every alleged scientific man who talks nonsense we might in time achieve a race of super-scientific men who would always talk sense; but this means of progress has not yet been suggested so far as we know. We fear that, to the inhabitants of Great Britain in the happy days of one hundred and sixty-five capital crimes, this admirable system did not "seem to keep down crime." The blessings of freedom from crime seem at least to have been imperfectly apprehended by contemporaries.

"Coaches were plundered in broad daylight every day for weeks together," says Hall[1] of this period. "The mail from Bristol to London was robbed five times in as many weeks. . . . Thefts, foot-padding, and street assaults were everyday affairs. . . . People believed that highway robbery was a special evil of their own times, and Luttrell's *Diary* and other writings of the latter seventeenth and early eighteenth centuries show its alarming prevalence. Luttrell's six volumes are simply filled with accounts of highwaymen, executions, etc. Thus an entry for December 22 and 23, 1690, reads: 'The 22d, thirteen persons were executed at Tyburn for several crimes; as also a woman at Newgate and a notorious highwayman in Fleetstreet.' 'The 23d, Sir John Jonston, condemned for stealing Mrs. Wharton, went up in a mourning coach to Tyburn, and was executed for the same.'" In short, the good old bloody days were days also of rank and rampant criminality.

The foregoing, of course, is not an argument on the subject of capital punishment; that subject is too broad to be taken up here. Indeed, this protest is directed not so much at the doubtless hasty utterance of the alienist quoted, as at its solemn endorsement by a metropolitan newspaper as the "severe" but timely judgment of a rigorously trained scientific mind. Really, we feel that a scientific man who talks nonsense should neither be hanged nor taken seriously. There ought to be an open season for these things.

Routine Is Not Training

So remarks our good friend *The Hospital*, of London—rather too sweepingly for literal accuracy, in our view. A certain part of training consists in the formation and fixation of habits by routine. Some parts of a nurse's duties are too important to be exposed to the hazards of the wayward processes of thought. The more nearly automatic they become, the safer they are. When, for instance, a nurse is taught, as a part of an absolutely unvarying routine, requiring no effort of the brain or will, to read the label on the bottle twice, once before and once after administering the dose, she receives an invaluable piece of training, for which no exercise of mental development is an adequate substitute.

[1]Hall, Arthur Cleveland: Crime in Its Relation to Social Progress, Columbia University Studies in History, Economics, and Public Law, 1902, xv, 251.

But if you mean, Sir Henry—and we fancy you do—that routine is not education, we must agree with you. There are hospitals where routine is looked upon apparently, not as a means to an end but as an end in itself—a sacred ritual to be performed with reverence but without thought, lest change in some minute detail profane and invalidate the whole. Here the whole effort seems to be to guard against the nurse's ever thinking for herself—an arrangement which might work well enough were it possible to insure that she would never encounter an emergency or lack some one at hand to do her thinking for her. We have all heard of the nurse who, having been trained to mix a certain medicament with a certain kind of spatula on a certain kind of slab, when on her first private case telephoned in great agitation to her instructor to know where she could purchase the spatula and the slab. What would such "training" do for a woman compelled to care for patients thirty miles in the country?

Yes, we are glad to endorse Sir Henry's sentiments, particularly when he says:

"There is, back of all, a very real and adequate reason for all this sweeping and dusting and washing and polishing which many seem to find so irksome. For one of the main requisites as regards the patient's surroundings is cleanliness, and although perhaps 30 or 40 percent of the probationers to be trained may fully understand the importance of such cleanliness, and require no training to fit them to see it carried out, the other 60 or 70 percent will not understand it, and would be incapable of enforcing it unless they had been through every step themselves and had been compelled to realize its importance by being made to do it thoroughly and regularly. But if the nurse is given no reason for it all, then she does become simply a machine, accomplishing so many revolutions per diem. On the other hand, make your probationer realize at the outset that she is working directly for the patient by keeping his surroundings fresh and wholesome . . . then you will have gone far towards changing her whole attitude to her work."

Hospital Posts for Men From the Service

One piece of conservation which should not be neglected in our reconstruction work is the application to practical purposes of the valuable experience gained during the war in the hospital and sanitary services of the United States. Hospitals and welfare departments of industrial concerns, especially mines and shops employing men only, should be able to make good use of such material. These young men in many cases chose the hospital or sanitary corps because this work was in the line of their ambitions; they used with earnestness and enthusiasm the opportunities afforded them; and these opportunities were such as to put them on their mettle and develop the best in them. Some of the non-medical and non-commissioned officers are no doubt better qualified by nature and training for some administrative posts in hospitals than are most of the candidates usually available.

It is scarcely necessary to emphasize the desirability for hospital work of those members of the medical corps where experience in the national service has been along hospital lines. THE MODERN HOSPITAL will feel it a privilege to serve as intermediary in placing in touch with each other men from these services and institutions which may desire to employ them.

Hospital Reports as Factors in Hospital Success

We wish to commend to our readers, as one of the most valuable and important papers that we have recently had the privilege of publishing, the article on "The Educational Value of Hospital Reports," by Dr. Carl E. McCombs, chief of the division of health in the New York City Bureau of Municipal Research.

Why do hospitals issue reports? To judge by the reports themselves, in most cases, because it is the thing to do. Why does the report in one case take one form, in another, another? Apparently because, in either case, it never occurred to the compiler of the report to do anything than what he did. Certainly in very few cases has the important function of the report received careful study; in fact, one might imagine that in very few cases had the report been thought of as having an important function to fulfill.

What is that function? Dr. McCombs makes that very clear: in the first place, to interest the community in the hospital and its work; in the second place, to show, clearly, exactly, and concisely, just what the hospital is doing, is prepared to do, and needs in order to do what it should.

The annual report is not or should not be a hospital's sole avenue of publicity, but it is too important an avenue to be neglected. In fact, it is so important that one of the most valuable pieces of constructive work that occurs to us at the moment would be the preparation, for presentation and discussion at the next meeting of the American Hospital Association, of an ideal, or at least a carefully planned and well executed, hospital report which might serve as a model.

Dr. McCombs' paper gives an excellent, concise summary of the essentials of a really good annual report. We hope that it will be widely and thoughtfully read, and we should be especially

pleased to hear from anyone who may have further ideas on the subject to express.

An Unusually Well-Planned Service Building

The service building of the Rhode Island Hospital, illustrated and described on page 85 of this issue is, from the point of view of the professional fault-finder of the editorial page, very discouraging; it offers so little opening for criticism. The location of certain rooms might be questioned; yet the arrangement of the class room and diet kitchen is so good, the provision for the bakery and the kitchen so complete, and the whole plan so well worked out that very little can be said on the subject except that it is unusually good and well worth study.

Names of Industrial Physicians Desired

Dr. Francis D. Patterson, chief of the division of industrial hygiene and engineering, Department of Labor and Industry, Harrisburg, Pa., would like to obtain a complete list of all physicians engaged in the practice of industrial medicine. For several years it has been the practice of the Department of Labor and Industry, to hold semi-annual conferences of industrial physicians and surgeons. These conferences are well attended, and a great deal of valuable matter is presented in the discussions. In order to reach all physicians interested, Dr. Patterson desires to have their names upon the mailing list. The next conference will be held early in 1919, and it is essential, therefore, that the names and addresses of all industrial physicians and surgeons be in his hands as soon as possible. The courtesy of physicians and surgeons submitting their names will be greatly appreciated.

Sanitation of North Carolina Jails

Out of a possible 100 points only two jails scored above 90 in a recent inspection of the county jails of North Carolina by the State Board of Health. Nine are scored between 80 and 90, and eleven between 70 and 80. The other twenty-six of the forty-eight which were inspected range down to a score of 47.

The sanitary rules and regulations upon which the scoring is based provide merely for the essentials in health protection of those persons who may be confined in the jails of the state. It is required that a physical record of the prisoner be made upon admission and that the races and sexes be separated, together with the separation of infectious diseases, especially tuberculosis and venereal diseases. Other regulations provide for precautions against vermin, for ample air and floor space, for pure water and bathing facilities, for proper clothing and bedding, for the sanitary disposal of sewage, for measures against flies and mosquitoes, and for general cleanliness.

A Survey of Vital Statistics Before Building

As a preliminary step in the establishment of a new hospital and the planning and construction of its buildings, there should be prepared a most careful study and survey of the physicians' records and vital statistics of the community which it is proposed to serve. Such a survey covering the community experience for a period of years would be of the greatest possible value in deciding upon the size and character of building necessary, and in adjusting the relative size and importance of the different departments in the proposed institution. Before taking any definite steps as to the size and character of the proposed building it would well pay a community to employ a statistical or other expert to make such a study, because of the elimination of improperly balanced planning and the resulting waste in administration and overhead costs.

It would also afford a fair basis upon which to estimate the future expansion of the hospital in general, and of its various departments. The most vital factor in the determination of a hospital plan should not be the money available, or the whims of the committee in charge, but should be the present and probable future needs of the community as deduced from the information made available by the study of such data.

Orientation

In planning a hospital, ideal orientation should not be attained at the cost of undue sacrifices in order and practical advantages in the plan. Those familiar with hospitals will recall many buildings in which "sun worship" has brought about planning which can be most charitably described as "peculiar." It seems to be the fault of tyros to attach too much importance to the placing of the axes of hospital buildings exactly on the meridian, regardless of other considerations. While the advantages of sunlight in all parts of a hospital are undeniable, a little less than the maximum may be accepted if the compromise results in locating the building in an orderly position on its site and the avoidance of eccentricities in the plan.

In the southern states it is often much more important to dispose the hospital so as to get the advantage of a prevailing wind than to give prime importance to the matter of sunlight. In cities, where the limitations as to site are governing factors, many entirely satisfactory hospitals exist where patients' rooms receive no other than north light.

By Your Telephone Operators and Your Doormen Are You Known

Telephone operators, information clerks, and doormen should be taught that the reputation of the hospital rests to a large extent with them. They are in constant contact with the public. The vast majority of persons who have dealings with hospitals know nothing about their officers, but they do know what kind of telephone operators, information clerks, and doormen they have, and they form their opinions of the institution from their experiences with them. These employees should never miss an opportunity to increase their knowledge concerning the various activities of the hospital. The more they know about the institution and its personnel, the more valuable they become. The superintendent who exercises care in the selection of these employees and sees that they are properly trained is rendering his institution a real service. In this connection, Mr. Pliny O. Clark's little article on page 94 of this issue will be found of unusual interest.

A Lubricant Which Will Not Injure Rubber Gloves

At this time of great need for conservation of materials of all kinds, the potential conservation of rubber gloves may well be considered. The life of the rubber glove, when used for gynecological examinations is of very short duration, as the use of vaseline or other greasy substances as lubricants deteriorates the rubber by softening and thinning it. There are several products on the market which are free from grease but their cost places

them beyond the reach of many hospitals. However, a very satisfactory preparation can be made at a small cost by using as a base the mucilage obtained from Irish moss, which is inexpensive, comparatively free from undesirable ingredients, and possesses very good lubricant properties, at the same time being harmless to the rubber, tending to preserve it and keep it soft and pliable.

The Treatment of Colored Walls

The day of glaring white walls in the hospital, let us hope, is over, and the colored wall has come to stay; but what color and how disposed? The answer to this is quite important for the comfort and pleasure of the patient.

In order that there may be sufficient light for the proper examination of the patient, the ceiling and upper part of the ward or private room should be light in color. There is no reason, however, why the lower six or seven feet cannot be kept reasonably dark, giving a more restful surface near the eyes of the patient. A division line between the two colors may be made in a simple stencil, in harmonizing colors.

Simple pictures of wood scenes, pastoral effects, or, in the case of children's wards, Mother Goose pictures, may be fastened to the walls with glue, and the surface varnished. Any artistic home colors applied in the flat with a little taste may have a real therapeutic effect on the patient.

Monthly Ration Plan Promotes Economy

One very useful plan for economizing in the use of food supplies is to adopt a monthly ration plan. Under this plan maximum limits of the various food supplies are decided upon and at the end of the month, if a maximum has been exceeded, an investigation is started to disclose where the trouble lies. One hospital allows 3⅓ pounds of butter, 11⅓ pounds of meat, 34 eggs and 20½ quarts of milk a person a month. Experience has proved that these are liberal allowances.

"It's Dogged As Does It"

If you in your little corner, Mr. or Miss Superintendent, are discouraged because you have so much hard work, and you see your neighbor flourishing and seemingly having no work to do, just remember that the hard-headed business man, in making out his will, is going to be attracted to that place where the work is consistently and thoroughly done from day to day, and not by the spectacular work which may last but a year or two. Cheer up and do your best.

THE LATCHSTRING OUT

We are pleased to have friends of THE MODERN HOSPITAL who happen to be passing through Chicago come and visit us at our offices, whether they are seeking information or availing themselves of the opportunity for a pleasant chat. To be of service is a privilege which we welcome. The files of our publication department, containing considerable data and statistics, may prove both interesting and helpful to those seeking information, while those who wish to be informed on specific topics already published in THE MODERN HOSPITAL may have full access to our complete set of back files.

MISS BLANCHE M. JOSEPH, field dietitian of the Emanuel Mandel Dispensary, Michael Reese Hospital, Chicago, during a few hours spent in our office recently, told us of an idea which had long been a dream of hers and which she hoped some day to see realized. Miss Joseph believes that every large city should have a lunch room—an "inn," she prefers to call it—where the business man or woman who is suffering from nephritis, diabetes, or even gastric ulcers might take the noon-day meal and have prepared those foods which meet the requirements for his or her particular disease. The "inn" should be under the proprietorship of an experienced dietitian, who, in turn, might interest various physicians in her project and have them refer to her those of their patients who need special attention in the matter of food. It should be located in some central part of the city, where it would be convenient not only for the business man and woman but also for physicians, who would be invited to visit it and offer criticisms and suggestions for obtaining greater efficiency. A large office building, Miss Joseph believes, would be an ideal location—one in which a hundred or more doctors had their offices. These doctors could then suggest the proper foods for the ills of their various patients and refer them to the dietitian, who would carry out directions and help them, through a correctly balanced diet, back on the road to health.

MR. J. E. BROYLES, superintendent of Fairmont Hospital, Kalamazoo, Mich., says that his hospital comprises three units: tuberculosis, contagious, and venereal diseases. The last unit includes cases sent from the various war camps, and for this purpose one building, formerly a nurses' home, has been patriotically put aside. In the tuberculosis building proper, there are 50 beds, in the contagious ward, 26, and in the venereal disease ward, 26. At present, five tuberculous soldiers are being cared for and are segregated from the others. In addition to serving Kalamazoo, Fairmont Hospital is doing some work for Van Buren County. According to Michigan law, two or more counties may combine to direct a contagious hospital, and it is thought that, with three other counties now interested, it may soon be possible to establish a four-county contagious institution.

All contagious patients are from Kalamazoo, and the cases include any and every contagious disease. The system is that of open wards rather than cubicles, four or five patients being put in one ward. An attempt was made to start a training school, but the course offered did not secure the approval of the state. With the present scarcity of nurses, both graduates and undergraduates are being used in the hospital. In the tuberculosis building, with a total of 40 beds, there are seven nurses, in the contagious building, three nurses, and in the venereal disease unit, two nurses (one day nurse and one night nurse). Each division has a head nurse, and one superintendent takes charge of the entire three units. The problem of domestic help has been solved by paying sufficiently high salaries to attract and keep efficient and worth-while employees.

MISS LYDIA H. KELLER, inspector of training schools of Minnesota and secretary of the Minnesota State Board of Examiners, spent a few hours in the office of THE MODERN HOSPITAL recently. Miss Keller believes that the day of definite nursing standardization is not far off, and she feels that the present is a most opportune time for a step forward in this direction. The women of the country are now greatly interested in the Student Reserve, and their interest, if used immediately, may be most helpful in securing needed improvements. If allowed to lag, however, it will be a most difficult matter to regain the necessary enthusiasm.

RED FOR SAFETY*

Highland Second Sight and the Red Cross at the Dardanelles—A Tale from Suvla Bay

By ANNA M. CAMERON

When it became known that I had orders to join a hospital ship, many were the gifts which reached me. I became stocked with necessities to meet every conceivable need, especially as it was being whispered abroad that events were about to become lively in the Dardanelles.

My old Highland nurse brought me her offering with an apologetic look on her dear old face.

"My dear, what will you be thinking when I tell you that your daft old Nannie has brought you red ribbon when she kens fine you canna abide the color?"

"It is lovely ribbon, Nannie; I like it very much."

The old woman smiled wistfully.

"My lassie, I went by the steamer to Oban to get you blue ribbon to tie your hair at nights, and when I got to the shop my gift of second sight began to trouble me sore."

"Oh, Nannie, I am sorry."

"It was like this. I got to the shop and just as I was going to ask for blue ribbon I found I couldna do it."

"How was that?" I queried.

"It sounds gey foolish, you'll be after thinking, but as sure as death something kept hammering in my brain driving me to ask for *red* ribbon. I tried hard to ask for blue ribbon, but my tongue went back on me, so after making queer-like faces, and kenning fine that the young woman was taking me for a gowk, I heard myself asking for twelve yards of good red ribbon one inch wide."

"That was very strange, Nannie."

"Aye, it was that. The second sight was on me right enough; for why, the dear knows. I thought at the latter end I'd no' give you the red ribbon, but something just drove me to it, and now"—with a sigh of relief—"you've got it."

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Hailed by the banners of the women of the Red Cross, the steamship Celtic arrived in port, returning from France with several officers and men. A Red Cross chapter welcomed her home, and this picture was snapped as she steamed up the river to her pier.

My protestations that I loved red ribbon did not deceive the old lady in the very least, and when we parted she whispered: "You'll forgive your old Nannie, my bairn; I had to go by the sign."

The army sister does not usually care for the color red. It borders her uniform cape, and she often gets as tired of it as of being hedged round and round by red tape.

The whispers concerning our destination were justified. We went straight to Gallipoli, of tragic fame, and did our part in the transport of sick and wounded to Egypt, Malta, and sometimes Blighty.

On one precious week of absence I saw my old nurse.

*From the British Journal of Nursing.

She was concerned over my bleached appearance and wept when I told her of the bravely borne sufferings of our men. At our farewell she whispered: "Do you wear the ribbon?"

I fear my reply was inaccurate. The roll of ribbon lay at the bottom of my cabin trunk. I disliked the color intensely. It reminded me too vividly of the blood which dripped and dripped when our brave men were shot in the boats, and thus wounded afresh on their way to the hospital ships—their sole sanctuary.

Our good old ship never returned empty on its eastern way. We usually carried the staff and equipment of a hospital to meet the ever-growing urgency in Alexandria. The medical officers were bidden to remain on the ship to receive their orders later. Conjectures were rife. Whispers of another attempted landing went round the ship.

We were bound for Mudros, to get fresh orders there. I was on night duty, as some orderlies had gone sick. On this particular ship sleep was for me an unknown quantity. The sisters appeared to be rummaging in their boxes in the neighboring cabins, and murmurs of "I was quite sure I had *some* red, but of course, I never wear any, so I only have a scrap."

"I haven't got any at all; looking is just a forlorn hope."

"They seem red mad for some curious reason," I murmured, trying desperately to sleep.

In the afternoon a white-capped head peeped through my porthole.

"Oh, good; you are awake. Have you any red ribbon or any red material?"

"Yes, I have some. What is all the fuss about?"

"You know the medical officers are bound for Mudros without definite orders, and that there are rumors of another landing?"

"Yes."

"Well, you know how stupid men can be. Out of two hundred doctors, less than fifty have the white armlet with the red cross, as they mostly imagined they were bound for Egypt. They may have to land on hostile ground, and they *must* have armlets. We sisters have stolen white linen from the stores and have been making them like mad, but the red stuff on the ship is practically nil, and we have over a hundred armlets short of the red cross."

I dressed quickly, and, fishing out the long-neglected red ribbon from my cabin trunk, unrolled it so that it might appear to the best advantage, and hurrying on deck I gladdened the eyes of over a hundred men by the delicious sight.

All the time Nannie's wistful face was before my eyes, and her words came back to me: "As sure as death something kept hammering in my brain driving me to ask for *red* ribbon."

"Someone queried: 'How ever did you come to have such lovely *red* ribbon by you?' and then I told old Nannie's tale."

"Scotland forever!" shouted an exuberant voice. "Let us all drink the health of your Highland nurse tonight."

The landing at Suvla Bay has passed into a memory, but a bitter one for those whose dearest paid the price.

On my next few days' leave I saw my old nurse again, and I left her one of the proudest dames in Scotland. The glad memory will always abide with her that *she* provided the red ribbon which marked over a hundred red cross armlets—the only means of safety carried by a devoted band of men who wrestled with the death by wounds which threatened such numbers of our volunteer men at Suvla Bay.

STATE TUBERCULOSIS SANATORIUMS IN ILLINOIS

County Tuberculosis Sanatorium Law, Passed in 1915, Is Upheld in General Elections of 1916 and 1918 When Many Counties Vote Funds—This Public Service Not Regarded as Charity

By GEORGE T. PALMER, M.D., Assistant Director, Department of Public Health, Springfield, Ill.

As a result of the autumn election, early in November, Illinois will be in a position to make more adequate provision for its tuberculous people and for the tuberculous soldiers who have already returned to the state to the number of fifteen hundred and whose numbers will doubtless be greatly increased by the return of the American military forces to this country.

Illinois has never had a state sanatorium, and prior to 1916 there were no public institutions except in Chicago and Cook County and a small municipal institution at Rockford. In the entire state, outside the Chicago district, in which it was estimated there were approximately fifty thousand persons suffering from more or less active tuberculosis, there were but two hundred and fifty sanatorium beds and most of these were in private institutions conducted at relatively high rates. The General Assembly of 1915 enacted the so-called "Glackin law," or the county tuberculosis sanatorium law, which provided that by referendum a special tax not to exceed three mills could be levied for the establishment of county tuberculosis sanatoriums, free tuberculosis dispensaries, and visiting nurse service.

At the autumn election of 1916, eight counties voted on the proposition. The measure carried in seven of these counties, but through a technical error in the ballot the election in Kane County was declared void.

In four of these counties, Adams, Morgan, LaSalle, and McLean, steps were immediately taken to erect sanatoriums. The LaSalle County sanatorium at Ottawa and the McLean County sanatorium at Bloomington will be ready to receive patients shortly after the first of January. In Adams County a site has been purchased and a contract for the building has been made, but construction was delayed on account of the rulings of the War Industries Board. In Morgan County a sanatorium building which had formerly been used for the care of the insane was purchased, but the satisfactory remodeling of this building has been interfered with by the shortage of funds. Incidental to litigation over the levying of a tax which was brought about by certain railway companies in Champaign County, the board of supervisors failed to levy the tax, and, after the institution of a suit for mandamus, appropriated a small amount of money; this has been expended in a tuberculosis survey and in the maintenance of dispensary and nursing service. At the annual meeting of the board last September, money was appropriated for the purchase of a site and for preliminary work, but no definite steps for the establishment of the Champaign County sanatorium can be expected before the September meeting of next year.

Ogle County, which is one of the smaller counties of the state, has levied a tax which is sufficient only to conduct dispensary and nursing service and to provide for its tuberculous persons in other sanatoriums in the state as authorized under the provisions of the law.

The results of the election of this year stand out as the most important accomplishment in the development of public sanatoriums ever attained in any state in the Union. Thirty-three counties voted on the proposition and the measure was carried by substantial majorities in all of these counties. The counties voting on the proposi-

tion are: Boone, Bureau, Christian, Clark, Clay, Coles, Crawford, DeWitt, DeKalb, Douglas, Fulton, Grundy, Henry, Jackson, Jefferson, Kane, Lee, Logan, McDonough, Macon, Madison, Marion, Piatt, Pike, Randolph, Scott, Stephenson, Tazewell, Vermilion, Whiteside, Will, Winnebago, and Woodford.

The campaigns in these counties were conducted by the Illinois Tuberculosis Association of which Dr. George Thomas Palmer of Springfield is president and Mr. Walter D. Thurber of Chicago is executive secretary. The measure received the unqualified support of Governor Frank O. Lowden, the State Department of Public Health, the American Red Cross, and the State Council of Defense.

The Illinois county tuberculosis sanatorium law is unique in state institutional legislation. The law provides that county sanatoriums are free to rich and poor alike, and it is the endeavor of Illinois officials that these institutions shall be regarded in the same light as public schools, or fire departments, and not in any sense as charitable institutions. The law also provides that county tuberculosis sanatoriums cannot be built on grounds set aside for almshouses, and no person having to do with almshouses shall be connected in any way with the tuberculosis institutions. The expenditure of funds raised by the special tax is entirely in the hands of the board of trustees who are supposed to be entirely independent of the influence of county boards; also the trustees are appointed by the chairman of the board of supervisors with the approval of the county board.

Whether the entire three mill tax or only a part of this amount will be levied in the several counties will not be determined until the autumn of 1919, but it is hoped that a large number of these county institutions created this fall will be ready for occupancy by January 1, 1920.

PUBLIC HEALTH AND VENEREAL DISEASE*

United States Public Health Service Carries Army Program Into Civil Life—Cooperation the Essential Thing—Hospitals Must Not Shirk Responsibility

By ALEC THOMPSON, Major United States Public Health Service, Washington, D. C.

I have been asked to explain the cooperation scheme which has been worked out between the Army and the Public Health Service. The civilian work heretofore done by the Army will now be taken over by the United States Public Health Service.

The Public Health Service program for combating venereal disease began last January when a telegram was sent out by Surgeon-General Blue asking the states to avail themselves of the Public Health Service offer to place a venereal disease officer in each state health department. Preliminary work was done under Assistant Surgeon-General Allen McLaughlin, who had been health commissioner of the state of Massachusetts. The Chamberlain-Kahn Bill, which is part of the military appropriation act, recently passed, carries with it a million dollars for state subsidy. During the present fiscal year, that million dollars will be distributed to the states upon a basis of population. Next year it will be based on the amount of money which the individual state is willing to put into the fight. Here is your chance to go home and do some work. This year your state will get some money; next year it can have the same amount of money, provided it puts up some money itself. It will get dollar for dollar, up to its population allowance.

*Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, N. J., Sept. 24-28, 1918.

In Massachusetts they appropriated $30,000 last year. The Federal subsidy for the present year is $36,000. They propose to ask the legislature for $50,000 as the state's contribution, feeling that the state should appropriate at least half as much again as it will receive from the Federal fund, and preferably twice as much. They are screwing up their courage to the point of asking the legislature for $70,000.

Funds are provided by the Chamberlain-Kahn bill for the administrative work of the Public Health Service; money is also provided for the organization of the Interdepartmental Social Hygiene Board—perhaps an unfortunate term. This is not a sex educational campaign; it is a public health campaign, putting venereal disease, the whole venereal disease question, where it belongs—on a firm foundation of facts, not fads. It is attacking disease, not fancies. It is not a question of whether the home should teach sex hygiene; it is not a question of whether the churches should teach sex hygiene; it is a straight question of venereal disease. What is the amount? How is it spread? Who are the carriers? How can it be avoided? How can it be controlled and treated? The New England scheme is simply a method of correlating the work of the six New England states, and, because of the close interlocking between the army program and the Public Health Service program, one officer has been selected to represent both surgeons-general.

In the New England district this is my particular job, and I am detailed from the Surgeon-General of the Army to the Surgeon-General of the Public Health Service for approximately half of my time. In other sections of the country, the reverse may be the case, depending entirely on local conditions and the personnel that can be assembled.

The Public Health Service in the venereal disease division has a section which devoted itself to the question of clinics and developing standards both for the theoretical and the practical side of the work. This section is asking the active cooperation of the hospitals. If you are in charge of an institution, you probably have venereal disease in your wards, even though you may have a "Not Admitted" sign on the front door, as most hospitals have. There is no use sidestepping the question. From 10 percent to 30 percent of your patients have positive Wassermann tests. You have a lot of cases of gonorrhea, and you don't know it. The institutions that are frankly admitting cases of venereal disease have the advantage in that the cases are tagged and the necessary precautions can be taken. I recall one patient who wanted to get into a hospital some time ago. He was sent in as a case of hernia; there was no other way of getting him in, and there was no place to take care of him. That is the way many such cases are received. In the army we do things a little differently, and we are asking the civilians to do the same things in the same way.

Another section of the Public Health Service is carrying out general educational propaganda of the public health side of the work, and, beginning this month, it will issue a monthly bulletin to be printed and edited in New York. If you will write the editor of the *Public Health Service Monthly Bulletin*, 105 W. 40th Street, New York, you will be placed on the mailing lists.

The Public Health Service aims to control venereal disease in the United States by developing methods which are recognized public health measures. These comprise, first, reporting; second, the detection of carriers; third, the isolation of the incorrigible carriers; and fourth, treatment facilities in hospitals and dispensaries connected with hospitals. This program requires the education of

the public, and not only the passage of adequate laws, but also their proper enforcement. Prostitution must be repressed to the point of suppression if that can be attained. When we say "prostitution," we do not refer only to the case of the down-and-out female; we are talking about the male and female prostitute. The Surgeon-General of the army started this entire program a year ago last April on the premise that continence is compatible with health and is the best prevention of venereal disease. That is a simple, self-evident, straight statement.

The program is to be worked out and is being worked out, in so far as is possible, as a he-man and a she-woman program. No long-haired men and short-haired women fanatics are to be in this fight. It must be a hard-hitting, straight-from-the-shoulder campaign. Facts are facts. We must look at them and take them as we find them. The sum total of venereal disease will shock us but we must carry on.

The problem of venereal disease control in the army is practically the same as it is in civilian life. I put it in this way because a good many who were controlling, or thought they were controlling, civilian venereal disease, went into the army with the idea that the army was the spreader of venereal disease. In peace days it was generally assumed that the army was recruited from the street, that the riff-raff was there, and that, as venereal disease also was there, venereal disease existed only in the riff-raff and was spread by the army. Venereal disease is no respecter of persons. Not a class in the community is without it, and all classes have it more or less in the same percentages. We have had this fact strikingly demonstrated to us since we have been in uniform. We are finding in the army confirmation of all our previous experience in attempting the control of venereal disease. The army educates its men; the army has advice and diagnostic facilities; the army has treatment facilities; and last, but not least, the army follows up its cases, because all that the army doctor needs to do when Private Jones does not come around is to send a guard after him. Your social service and your follow-up by the printed letter or card must take the place of the one little thing that we have in the army—namely, discipline.

This organization is probably aware that there were certain—and very few, let me add—civilian clinics and health departments that developed during the last few years various methods for the reporting of venereal disease as well as for providing facilities for treatment and diagnosis. We have been endeavoring during the last year to stimulate and increase these activities, and we want you, as individuals and representatives of your institutions, to take the word "slacker" off the front of your building and put up "venereal disease admitted" instead. I mean that. I mean it very sincerely. Let me tell you why.

Since war was declared, there have been 158,000 men in the United States Army with venereal disease, which means the loss of 2,300,000 days; this is equivalent in time to 6,300 men for one year. Only one-sixth of these cases were contracted by men in olive drab; the rest came in on men in the draft who should have been cured in the civilian community before the army ever saw them. During a recent test of nine weeks, there were 39,425 cases of venereal disease reported in the army of the United States, of which only 4,106 were contracted after enlistment. Now these are figures worth pondering over. At the camp the average period of time from the day of infection to the day of induction into the army was six months, and man after man said, "I could not get treated. I could not go anywhere. The only place open to me was the quack or the corner drug store." We are asking you as institutions to give the facilities to which cases can be referred that are in such urgent need of treatment. I might have said "our cases." After a man has registered under the selected service law we figure that he becomes practically part and parcel of the army, and it does not make any difference whether he ever gets into uniform or not.

We are carrying this campaign into the factories; we are going into industrial plants and placarding the toilets and washrooms, both for men and for women, calling attention to venereal disease, explaining how serious it is, and emphasizing the only method of prevention, which is continence. We are asking the plant superintendent to become the confidential adviser, or else to make one of his physicians, his social worker, or his welfare worker the confidential adviser to the plant, and to tell these people where they can go to get treated. What are they going to be able to tell them in your town? That they cannot go to the hospital because the hospital says "No"? That is what we are up against in Massachusetts. In one town where they flatly refuse to have venereal disease in the hospital, I suggested to the hospital superintendent that one of two things would happen—either we would have venereal disease admitted to that hospital and a new dispensary connected with it, or we would have a new superintendent.

You can measure the size of our problem in another way. The reporting law in the United States shows in every state where it is actively working that venereal disease is the next most prevalent disease to measles. You know how much measles there is in your community, more or less, and you can easily estimate how much venereal disease you have to plan for. There is practically as much syphilis as tuberculosis, if we may judge by the reporting law. That is the size of our problem. That is why we are asking hospitals to come across and help in the campaign.

Take the question of expense. It is costing Massachusetts $750,000 a year to take care of its syphilitic insane, every bit of which could be prevented and every bit of which will eventually be prevented if Massachusetts goes over the top on this program. It will be prevented by the early treatment of the cases that are contracted, and, better yet, by the prevention of most of them. The army program has borne fruit, and I want to tell you right now that the United States Army, from records—not from guess or anybody's say-so, but from records—shows up today as the cleanest army in any nation in any war in history. We have said to thousands of men in Massachusetts in the last two months, "There is a lot of greasy Hun propaganda going the rounds. The thing to do to the next person who stands up and says the American Expeditionary Force is vice-ridden is to knock him down first and call him a liar afterwards." The best rate the army ever had was in 1916, when the incidence was 91 per thousand per annum. The rate in the American Expeditionary Force for the last four weeks has been under twenty. In other words, education pays and preventive work pays.

The reduction is not due entirely to the so-called "prophylaxis." That is one side of the work that you will hear criticised a great deal. This audience does not need to be given a definition of prophylaxis. We consider prophylaxis in the Army today to mean the entire program of education, vice repression, recreation, occupation, and treatment. We know, from the examination of thousands of women who have been picked up throughout the

United States since war was declared, that 95 percent have gonorrhea and 53 percent have syphilis. In other words, 53 percent have both. We give the men the facts and the figures, and tell them that "the fool who exposes himself to venereal disease must be assumed to have contracted venereal disease." We then give what we call today *early* treatment, and if we can get a man within one, two, or three hours of his exposure, we can prevent the major symptoms which lay him up for a period of two to three weeks in the camp. That is our program. Vice repression, as it has been carried out by the army, has done a tremendous amount of good. It has awakened a large number of communities. We have closed vice districts all over the country. I do not know what the last figures were, but the figures three months ago were eighty-odd red light districts eliminated. We have a saying in the United States Army that "you can't fight right under the Stars and Stripes if you take your pleasure under a red lantern."

I believe that the clinic should be a teaching center. It is among the infected individuals that you frequently get the best converts—the man who didn't know and the woman who didn't understand. We ask that the hospitals become an educational factor, that clinics be established, and that you, as individuals, go out and do missionary work. You can develop a community morale, or whatever you like to call it. I am sure it can be done in civilian life just as we have done it in the Army. Permit me to illustrate what I mean:

After I had shown the Army film, "Fit to Fight" to an audience in Boston the other night, a gentlemen came up to me and said, "That's a great film; some of that stuff you were talking must have been taken from the Army pamphlet, 'Colonel Care Says.' My boy is overseas in the 76th Division which trained at Camp Devins. I wish I had here the letter he wrote the other day. It ran something like this: 'Dad, one of our squad's in the hospital with gonorrhea. That is not why he went to the hospital, however. He went there because he had a broken nose and two black eyes. The rest of the bunch finished him when they found what was the matter with him, because, you know, as we said in the camp, the soldier who gets a dose is a traitor. You better tell mother; it will make her feel better.'"

The army has developed a spirit, a morale, which a good many people call morals and which we choose to call fighting spirit—"Get the Hun" stuff—that is perfectly marvelous. In going out and talking to the civilian community we have discovered that there is a wonderful demand on the part of the average man to have a vehicle to express the decent things that are in him. He has never been able to do it. We have always gone on the basis of a conspiracy of silence, a feeling that you must not talk about venereal disease, that you must not come out and say what is in you; it was not so long ago that if some young chap said, "Well, we won't go down the line tonight," the rest of the crowd would have laughed at him because he was a mollycoddle. Today in the Army that viewpoint is changing, and we are proposing to change it in civilian life as well. We are proposing to change it not only so that we may win the war, but that, when the war is won, we may be fit—fit for these boys when they come back. They go overseas boys and come back—men; they are men within a week or two after they get into the great adventure over there. If you talk to any returned men, Y. M. C. A. or K. of C. secretaries who have lived and worked with the soldiers, they will tell you how they have changed, and I promise you, as I have been promised by many of them, that, when these fellows come home, they will run these little United States and some of us who have not done our part in the clean-up will be required to take a back seat, whether we be doctors, hospital superintendents, or the common garden variety of citizen.

If only one-sixth of all the venereal disease treated in the United States Army is contracted by the United States Army, the other five-sixths must exist in civilian life. If five of the six cases are brought into the United States Army as drafted men, the question to be answered is: What can be done with them before they come into the Army? Let me illustrate what we are proposing to do in Massachusetts—and I think it will be done and can be done everywhere. The instruction boards, which are part and parcel of the draft boards, are telling men, those in Class 1 particularly, where they can get treated for their venereal disease if it is found that they are infected. Now we are proposing in Massachusetts to give the instruction board a list of all the clinics. We are proposing to ask the hospitals for more clinic facilities. We are proposing also to parallel this work in the industrial world and go into the factories and post the plant with the names of the approved clinics. Now when I say "approved" I mean this: We do not feel, either in the Public Health Service or in the office of the Surgeon-General of the Army that a clinic is worth while unless it has active social service connected with it. We can no longer stand up and say that the person who has venereal disease must be shunned or that he is not worth considering. Ninety-nine percent of them, whether they be men or women, did not know, and, in my private opinion, if it had not been for ignorance, 50 percent of them would never have had venereal disease. That being the case, it seems to me that we ought to be able honestly, wholeheartedly, and humanly to extend to them the right hand of fellowship. Do not condone what they have done, but on the other hand, do not hit them in the face and make them go and do it all over again. You can develop, at practically no cost, a venereal disease clinic in any hospital of any town of sufficient size. It did not cost the Brooklyn Hospital anything but heat, light, and rent. At luncheon today I just happened to hear about another pay clinic in this country that was realizing a sufficient surplus over expenses to make the executive wonder where he ought to spend some of the profits. Profits on venereal disease pay clinics are not large, but they should be devoted toward enlargement of the clinic, and not for other purposes in the hospital. The possibilities lying behind a clinic are tremendous.

Let me illustrate this point by telling you that in the year 1912 the venereal disease clinic of the Brooklyn Hospital Dispensary administered something over 2,000 treatments. In 1914, an effort was made to get the patients to continue treatment until discharged as cured. Please note that in the whole history of the institution—and I had been there six years before that—this was the first time we ever tried to get them to come back. In 1915 the clinic administered about 6,000 treatments; during that year more active measures were taken to follow up patients ceasing treatment before being discharged as cured, and further effort was made to impress upon the patients the necessity of keeping constantly at it until definitely told by the doctor that they were well. The result was the administration of 15,500 treatments in the year 1916, and, as an illustration of the automatic effect of constant effort, the year 1917 showed the remarkable record of over 30,000 treatments. In the same plant, in the same room, and with practically the same personnel, we doubled our service every year, applying the common

business variety of efficiency methods to the running of the pay clinic which made last year, with its maximum load of 30,000 people, practically self-sustaining. There are a number of clinics that are doing what the Brooklyn Hospital Dispensary did, but not so many as there ought to be.

It is interesting to know that as soon as you begin running a venereal disease clinic on an efficient basis and put a human atmosphere in it, there is an increase in the number of visits. The total number of visits is not due to new patients but to patients coming back, continually coming back, until a fair percentage of them are certainly rendered not communicable and a small percentage of them are cured. Those are all old figures. It ought to be the other way around—that a large percentage stick until cured and a small percentage quit after being rendered non-communicable but before being cured. The average number of visits per patient per year, according to most surveys, has been under fifteen in most clinics throughout the country. On the surface of it, you can see this means neither a reduction in venereal disease nor a cure of the cases. This condition must be remedied; the clinic must have efficient follow-up—efficient social service. Help the patients over the rough spots; finance them for a little while until they get back on their feet. They will respond. Most of them are honest. A good many of them would not have contracted venereal disease if they had not been fairly human. They make wonderful material to work with, and you will be well repaid for every cent you invest in them. We have lost almost no money in the administration of over $4,000 of the Brooklyn Hospital salvarsan fund. I don't believe we lost over $100. In the first $200 of the salvarsan fund we lost six dollars, and that first $200 was carried, some of it, six months. It can be done everywhere; Brooklyn is not an especially honest place or an especially human place. You can do it. I will guarantee that any social service worker who has done any work with venereal disease will find that these cases are keen to be cured when they understand the terrible consequences to their families and the people with whom they come in contact. In short, they are the finest little cooperators you could ever get.

If your state has a reporting law, see that it is enforced. Use your hospital facilities; use your personal persuasion with your hospital staff to jack up the doctors on their reporting. I am sorry to say that the biggest obstructionist we have run up against in this entire venereal disease campaign is the doctor. The doctors, however, have a peculiar warp in their mentality which makes them believe that they won't get patients if they report them. I have been all through it. I did not report my cases when the law first went into effect in New York City. In the Brooklyn Hospital Dispensary we used to write the report up after the patients had gone, because we were afraid that if they even saw a health department slip around the place they would not come back. Before things had gone very far, that was found to be an awkward and cumbersome thing to do; so we changed. After that we used to sit down with the patient and say: "Smith, where were you born?" etc.

"What do you want that for?"

"I am making out the health department report; you are going on record."

"What does that mean?"

"Nothing if you keep to your treatment, but a whole lot if you don't."

It works beautifully. I suggest that the hospital get busy and educate its own staff to comply with the law, and then let that staff go out and educate the rest of the physicians in your community. We are discovering that education of physicians by physicians helps considerably in Massachusetts. Surely it will help elsewhere.

How much venereal disease is there in *your* community? How much work there is for a clinic depends on so many factors that there is no use in discussing the matter here. I may say, as an index, that in Massachusetts from March to August there were reported 4,216 cases of gonorrhea and 1,755 cases of syphilis, and we feel satisfied that these figures cover only about one-third or one-quarter of the total number of communicable cases that should have been reported; in other words, there is a demand of about 25 percent of those cases for treatment. When you consider that the average case of syphilis needs from one to two years of pretty constant hospital dispensary care, you can realize that it doesn't take very long to develop a large venereal clinic. The superintendent of one of your hospitals said to me a few moments ago, "The clinic is growing so fast that I don't know what is going to happen." I know what is going to happen—as he can not put rubber walls on his building, he will have to build an addition to it.

We have threatened the Massachusetts clinics with an increase in business. The Boston dispensary has recently opened a special evening clinic for women—a thing that was once considered unnecessary and unheard of. It took a long time to convince the chairman of this meeting that it was a good thing to do. It took me nearly a week. That clinic is going to be doing a land office business within the next six months. Why? Because the community in Massachusetts is being educated in this subject and is desiring treatment. Communities throughout the United States, willy-nilly, will be educated on the seriousness of venereal disease and will demand treatment. It becomes necessary, therefore, for the civilian hospitals to anticipate the demand by establishing real, live, human venereal disease dispensaries. You need not face the bugbear of opening up your wards. If you will provide dispensary facilities, I do not believe that you will need more than one or two beds for an average dispensary. Some of the clinics that are running between three and four hundred treatments a day will need more than that. At the Brooklyn Hospital I do not think that on an average we would have needed more than three beds at any one time for our cases of straight venereal disease. The Massachusetts Homeopathic Hospital is planning to put in twenty-five beds, but that is from another angle.

We must have facilities somewhere for the detention, treatment, and, in so far as possible, rehabilitation of the unfortunate girls that we are picking up. Please note the term "girls." The women, the hardened prostitutes, we feel as a war measure need immediate humane jail attention; but the hysterical female of sixteen and seventeen, the chippy that we warn the Army against, must have some place where she can be taken care of for her venereal disease.

To illustrate what I mean: recently in Boston on three successive nights, the probation officer and the War Department protective worker for girls picked up at one of the beaches something in the neighborhood of twenty or thirty girls. About 35 percent of them had venereal disease and most of them were under seventeen, if my memory is correct. They were not prostitutes in the ordinary sense of the word; they were what one very efficient War Department protective worker for girls described as "patriotic prostitutes"—girls who have become hysterical over the army, who have not had education or instruction, and who do not know what it is all about. They are the girls you and I should have been thinking about in the

past. This is truly described in our War Department work as protective work for girls, but it is also the prevention of venereal disease. Protection against the whole pitiful thing is the major consideration. In so far as it is possible for the War Department to do so, we propose to carry its protective work up to the point where no more recruits are obtained for prostitution. It is a big job. It is a bigger job than we people in uniform can handle. When you realize that the Commission on Training Camp Activities, of which you have heard a great deal, and the War Camp Community Service work was primarily organized for the prevention of venereal disease, you will realize the tremendous size of the problem as we see it. There would never have been the big organization that exists today if it had not been for the one solitary purpose of preventing venereal disease. That organization grew out of conferences held in Washington to consider the ways and means of preventing venereal disease in the United States Army, and, as I have said before, the campaign has produced five lines of attack, (1) the repression of vice and its suppression when possible; (2) the instruction and education of the soldier; (3) the recreation of the soldier through the various activities of the Y. M. C. A., the K. of C., and all those organizations that are interlocked with the Commission on Training Camp Activities; (4) the occupation of the soldier; (5) facilities for treatment of the infected individual. We feel that we can keep him well occupied with his job when he gets over on the other side, we can keep him fairly well occupied with his job while we are training him here, we can keep him fairly well content with our huts and hostess houses and athletic games, we can keep him fairly well instructed—we can, in short, do all that is humanly possible to uphold our military responsibilities. We have motion pictures, pamphlets, lantern slides, exhibit placards, and all sorts of things; and we are doing a tremendous piece of work in protecting the soldier from the temptations of vice.

But what we want to do is to have the same work attended to in the civilian community. We want the civilians who are infected with venereal disease to be cleaned up before we get them into the Army; we want the civilians who are infected to be cured, even though they are not coming into the Army, so that they can do efficient work; and we want the hospitals to get into this fight and to combat venereal disease, so that we will have fighters fit to fight and workers that are fit to work; and then, when we lick this old Hun, as we are bound to do, we shall all be fit to win!

Abstract of Discussion

DR. JOSEPH BYRNE, New York: Major Thompson's paper has stated most emphatically that this is a question of public health and not one that concerns home education and religious training. I think that both the major and Washington, if Washington is sponsor for that statement, are absolutely wrong in that contention. Later on in his discussion, he has stated that the problem is too large for men in uniform to handle. This contains the gem of the real truth. It is admitted that the one way to prevent disease is by continence. Now, I am a psychologist, and I insist upon getting to the ultimate causes in every condition; the question brought up by abstinence involves intricacies in psychology that go back fundamentally and primarily to the basis of our education, which ultimately must be regarded from the spiritual standpoint, and rest on home influence and religious training. Major Thompson has talked about educating the legislator. Very well and good. I advise him to begin by educating the doctor, and particularly the men of his own specialty. The very men who have retarded advance in the hygiene of sexual disease have been the men of his own specialty who have always referred to these diseases as something very jocular, and have used in regard to them such terms as "When did you get your dose?" etc. That has been the real obstacle to progress in hygiene in sexual disease.

MAJOR THOMPSON: I most heartily agree with the speaker, and if I gave the impression that the War Department does not approve of home and religious training, I regret it because what I wanted to say was that the Army and Public Health Service proposed to keep away from that angle of the thing and leave it in more competent hands. I do not see, personally, how we can put the moral side and the religious side of this thing over as a Government proposition without stepping on the corns of numerous groups. I don't want my kid educated by some of your folks, and I presume that if some of your folks have children you would not particularly like me to educate those youngsters on the moral side and the religious side. On the public health side I think we have a little different ground. As far as my noble profession is concerned, with regard to venereal disease, I am and have always been disgusted with it. I thoroughly agree with the gentleman from New York. The psychology of this thing does go back to the home and to the religious angle of the thing, but the public health side is our affair. One of the chaplains in one of the camps remarked to me when I asked him what he thought of our campaign, "It's fine."

I said, "Don't you think we are a little too rough in the way we say things in the Army?"

He said, "No, I don't; you are talking United States, and United States is the language of the Army. Tell the boys the facts, tell them to them in words they can understand, but, for goodness' sake, keep off my grass and let me talk about morals and religion to them."

I said, "I'll meet you right there, Lieutenant."

DR. R. G. BRODERICK, San Francisco: We feel that San Francisco in this campaign is doing a great work. It is known as the California system of cooperating with the Public Health Service and the United States Government. There are two or three matters I should like to bring out. The major spoke of sending the prostitutes to jail, and keeping the patriotic girls, as he called them, for clinical and hospital care. In San Francisco we have established a ward in the San Francisco General Hospital, of which I am superintendent, in which we have at the present time about forty-five patients. We have adopted the scheme of arresting these women upon complaint from the Army or Navy under the general clause concerning vagrants. These women are brought before the court; under a state law all vagrants are examined for communicable disease. These women are taken into a clinic during the detention time of twenty-four hours, and upon the hearing next day they are not subject to bail. If the physician and nurse who are present state that the accused has gonorrhea or syphilis or chancroid, any communicable disease, in fact, the court suspends sentence and admits this patient, under the general act of the state on contagious diseases, to the city hospital, where she comes in as a patient; that is what I would like to underline. She is not under any police restrictions; there is no lock hospital or suggestion of anything like a penal or jail appearance about the ward. The patients have their own roof garden, their meals are excellent, and during the entire time that they are there social welfare work is carried on by the Home of Friendship and the Y. W. C. A.; these agencies have rehabilitated many of these girls and brought them back to their homes, and I am sure it is not such a hopeless task as it would appear. These women are, in my opinion, a great menace in the spread of venereal disease. I know of one case that transmitted over one hundred infections in one night. The problem is terrific, I think, for the military, and we have already received reports from the Government complimenting us upon this work. You spoke also of salvarsan. In San Francisco, fortunately, under the state law, we have the free administration of salvarsan through the clinics and through the hospitals. This is paid for by the state; it is a service to the public. Our clinics are run day and night. We have clinics that are carried on in the public health department, and the night clinics are splendidly attended. We have likewise the state registration law, and we use this as a little tip to the individual to come back and receive his treatment. We have also recently established a male ward for genito-urinary diseases, and all men who are found to have this disease are likewise treated in the hospital free of cost in the same way that you would control any other communicable disease.

MAJOR THOMPSON: Down in Washington, while we were working out a good deal of this, Major Sawyer and

I were called the roughneck twins. All we talked about was the California plan; on the basis of the state work that California did and the local work the Brooklyn Hospital did, most of our general ideas grew. California has done a wonderful piece of work. The director of venereal disease of Illinois was in Boston with me the other day, and they have just recently locked up twenty-seven men who were spreaders of venereal disease, incorrigibles not under treatment. We are picking them up daily in Massachusetts. We have free arsphenamine in Massachusetts, manufactured by the state. Every state should put venereal disease therapeutic measures on practically the same basis on which diphtheria antitoxin has been placed.

BASE HOSPITAL NO. 1, NEUILLY, FRANCE

Built for the Lycée Pasteur, Taken Over for Use as the American Ambulance, Base Hospital No. 1 Is a Monument of American Efficiency

Base Hospital No. 1 stands out among the show places in Paris. In every one of its various stages, even in the chrysalis stage when it was the famous American ambulance, our countrymen had a habit of pointing to it with pride. For four years since then American persistency and American effort have been conscientiously applied, so that today its staff can delight in the proverbial American superlative—it is the most modern war hospital in the world.

Perhaps the most interesting fact about this finest of all war hospitals is that it is and has always been the *American people's* hospital, supported entirely by private contribution. In 1914 "the Americans" took over the magnificent but unfinished Lycée Pasteur at Neuilly, completed it and put in six hundred beds for French and English wounded. With the entry of the United States into the war its capacity was increased to two thousand beds. Since the first American offensive it has served as a casualty clearing station with its two thousand beds taxed to capacity.

Over-taxed as it is, the whole building breathes an atmosphere of calm which, businesslike in the basement, and in the neat little meat shop and green grocery and kitchen which quietly prepare and serve seventy-five hundred meals a day, businesslike in the white enamel operating rooms,

Fig. 1. Base Hospital No. 1, formerly the American Ambulance at Neuilly.

becomes almost religious among the rows of dignified white faces in the wards.

Every man arriving at No. 1 goes through the same routine.

1. He is given a bed number; his valuables are taken away from him and put in a bag.
2. He is given a bath.
3. He is passed to the X-ray department, where in less than a minute the fluoroscope locates the foreign body.
4. He goes to the operating room. Every case is operated upon before being put to bed in a ward, a rule which during the rush means some 230 operations a day.

As for the wards, at first sight the layman thinks he is entering a machine shop when he goes into some of them, so different is an up-to-date ward for the treatment of bone fractures from the hospital ward that he knows. Here the bed and the boy in the bed seem quite incidental, half hidden as they are under the array of paraphernalia used by the modern surgeon in his treatment of broken limbs, a combination of the Carrel method with the discovery of Dr. Blake. But on closer approach the visitor notices that the pulleys are cords and not chains, that the weights are enclosed in linen bags, that the bulbs of Dakin solution are only glass and that the framework built high over each bed is of very light wood, not of iron. His first alarm for the safety of the boy underneath dies down somewhat, to disappear completely when Dr. Miller of the hospital staff patiently explains just how the system works.

The pathological laboratory, which decides when each wound in the hospital is to be sewed up transfers the daily records of each patient to a chart. When the curve shows that the "bugs" are down to one germ in five fields, no matter how large the wound is, it is sewn up tight. The radical departure from the procedure of before the

Fig. 2. The operating room at Base Hospital No. 1.

war, when wounds were left to granulate over and heal of themselves, saves thousands of units to the United States army. A function of the pathological laboratory whose importance cannot be overestimated is to match blood samples, a preliminary to all transfusion of blood which makes the success of this operation a foregone conclusion.

In another room the Connel apparatus for local anaesthesia is brought to one's attention. It is thanks to this apparatus, which throws a warm ether spray into the nostrils, that the face and jaw operations performed by Dr. Miller and other surgeons have attained an unbelievable success.

These operations are very often a collaboration between the surgeons and the dentists on the floor above. The hospital is delighted with its dental service, "the finest in all Europe." So great is this department's popularity that it has encroached upon the confines of the room next door, and when an American general decides to have his teeth fixed he is quite apt to be ushered into the institution's chapel, a dental laboratory on week days.

The management seems to have adopted Abraham Lin-

coln's idea—if you want to be sure a thing is done right do it yourself. They go on the principle that nothing shall get away from them. And indeed, except for the washing, which is the only contract let out, and the bread, which is the snowy white product so envied by all Frenchmen, made by Uncle Sam's bakery at Dijon, they do all of their own work themselves. Everything down to sore throats and colds in the head are cared for in the building, which perhaps accounts for the fact that there have been fewer cases of Spanish influenza here than in any other hospital in Paris.

Every square foot of space in the Neuilly hospital is interesting if only for its cleanliness, its immaculate order; and as one listens to the faint strains of military music floating through a window in the court yard one cannot help feeling sure that, if the father of modern medicine to whom the great new monument was originally dedicated could inspect the work being done in it by these strangers from across the seas, he would be as enthusiastic in his praise of their concerted effort as are his successors in France today.

SOME ECONOMICAL HOME-MADE DEVICES

Ingenuity Produces Useful Apparatus—Butterworth Hospital Has Many Improvements to Its Credit

A representative of THE MODERN HOSPITAL, on a recent visit to Butterworth Hospital, Grand Rapids, Mich., observed a number of useful and clever devices, which were found to be due to the inventive genius of the superintendent, Miss Elizabeth Selden. Miss Selden has very

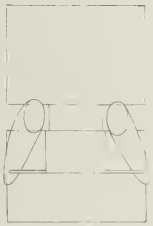


Fig. 1. Cart on large casters, designed for cooling and drying sterile dressings. The framework, of 2- to 3-inch wooden strips, is covered with open-mesh wire netting, which is also used for the shelves.

Fig. 2. One-piece maternity vaginal drape, composed of top sheet, laparotomy stockings, apron, and undersheet, to be adjusted so as to cover the patient entirely.

kindly furnished for the readers of THE MODERN HOSPITAL descriptions of some of these devices, as follows:

STERILE DRESSING CART

This cart (Fig. 1) is designed for cooling and drying sterile dressings when first taken from the hot sterilizer. The framework is made of 2- to 3-inch wooden strips. The framework is covered with open-mesh wire netting to allow free circulation of air. The shelves are also made of the wire netting fastened to framework. The cart is placed on large casters which aid in moving it about.

MATERNITY VAGINAL DRAPE

This one-piece maternity vaginal drape (Fig. 2) entirely covers the patient. The top sheet, laparotomy stockings, and under sheet are all joined, and can be adjusted at one time. The drape is held in place by an apron, which is pulled up under the patient and fastened in front with tapes. The patient can extend or flex the knees without disarranging the drape and still preserve a sterile field.

There is a vaginal opening large enough to allow for the passage of the child. After the drape is adjusted, the corners of the top sheet, laparotomy stockings, and under sheet are fastened together.

ETHER FUME APPARATUS FOR RHINOLARYNGOLOGICAL WORK

This ether-fumes apparatus is used extensively for nose and throat operations. It is described in the legend (Fig. 3).

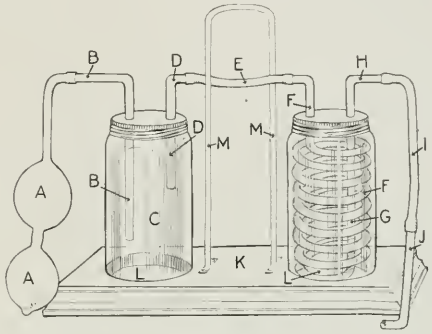


Fig. 3. Hand-power ether-fume apparatus, used for nose and throat operations.

A. A set of double rubber bulbs used for forcing the air through the ether, vaporizing it.
B. Metal tube leading into the ether jar or can.
C. A glass fruit jar or can with a screw top, which contains the ether. The cover has two openings, one through which the tube carrying the air passes, and the other the tube through which the ether fumes escape.
D. The metal tube through which ether fumes escape.
E. Rubber connecting tube.
F. Metal coils, through which ether fumes pass and in which they are heated.
G. A glass jar or can containing hot water, in which coils containing ether fumes are immersed.
H. Outlet from coils.
I. Rubber connecting tube carrying the heated ether fumes.
J. A metal mouth-piece, through which the fumes escape into the patient's mouth and lungs.
K. A heavy wooden base block upon which the apparatus stands.
L. Round openings into which the jars fit.
M. Handle for carrying apparatus.

Building Program for Hospitals for Mental Diseases in New York State

The end of the war has brought about a vigorous campaign for pushing the building program for hospitals for mental diseases in New York State on the part of the State Charities Aid Association. There is an overcrowding of 6,455 patients, which amounts to 22.3 percent, in the hospitals of New York. The Hospital Development Commission is studying and planning systematically for more accommodations, and the state is now committed to the following building projects: the erection of a new state hospital at Creedmore, on the outskirts of Brooklyn; the erection of a state hospital at Marcy, near Utica; the establishment of a psychopathic hospital in New York City; the establishment of another state hospital in the metropolitan district to take the place of the abandoned Mohansic institution.

The Seaside Hospital at Bagnoli

The seaside hospital at Bagnoli was established in 1906 for the treatment of rachitic, anemic, and paralytic patients. The institution has lately been greatly enlarged by the addition of a new pavilion capable of housing 150 patients. There will be surgical, orthopedic, serotherapeutic, and heliotherapeutic divisions. The new buildings will be devoted exclusively to the treatment of male and female tuberculous patients. The hospital is described in a recent issue of the *Policlinico* of Rome.

ASSISTANCE OF PUBLICITY TO HOSPITALS*

Civil Hospitals Must Gain Confidence and Support of Community—Suggestions for Successful Advertising

By R. S. SOMERVILLE, Director of The Vancouver General Hospital

It is undeniable that the great majority of people in this province know more about the work being done in the base hospitals at the front than they know about what is being done in the hospitals of the province. The reason is that their interest has been enlisted in the base hospitals because of the many stories written and told about them. For every item they read about a civilian hospital they probably see twenty dealing with war hospitals.

Support is largely based on two things—knowledge and confidence. If any of our hospitals are unable to stand the test of taking the public into their confidence regarding their work and affairs generally, there is something lacking. Perhaps the reason why some hospitals seek no publicity is that they have enough sense to keep silent. But one feels sure that such hospitals are not represented here today, nor do they exist in this progressive province.

Publicity does and will do two things for hospitals: it educates and it enlists support. There can be no question but that both aims are worthy and that the two are closely related. The popularizing of knowledge as to the work being carried on in a hospital in the treatment and cure of diseases is as necessary and legitimate as the advertising of its wares by an industrial concern. In both cases it means the securing of support. Most of the hospitals in British Columbia are public hospitals which have to depend on public grants and voluntary gifts. They can not collect all they earn, because they are at all times dealing with the poor and unfortunate. But the public can always be induced to give to worthy objects.

Hospitals, whether in large or small centers, carry on a work of vital importance to the community. The chief asset of a community is its health. The work of alleviating pain, healing the broken, and restoring the sick to health and vigor is not only of prime importance but is never-ending. Institutions of this kind can have no holidays nor can they declare a walk-out. Public hospitals can not refuse admission to the sick. With these facts in mind there is no reason why an apologetic attitude should be assumed in inviting support. These institutions must be maintained at a constantly increasing state of efficiency, and this costs money.

The attitude of hospital managements in general regarding publicity has undergone a marked change in the past few years. The absolute need of it is recognized. Not so many years ago the interior of a big hospital was as unknown to the average man as the inside of a penitentiary. It was a close corporation, with the result that ignorant gossip had full play. The Vancouver General has had its own experience along this line, and even yet one occasionally hears the most absurd stories down town. I suppose that this is inevitable, but constant and well directed publicity will consign most of these fairy tales to the garbage heap.

On the advent of Dr. MacEachern to the general superintendency of this hospital, he inaugurated a new order of things which has borne much good fruit. He has always found time to talk to a newspaper reporter and to send him on his way rejoicing. He has made friends among the local newspaper men, with the result that he is able to command much valuable publicity in the press. By this means he has been able to put a quietus on many yarns which had no foundation in fact.

Public support will follow public interest. Once a man or woman becomes interested in a hospital, the next step which is almost certain to follow is that he or she will support it in some form or other. With the exception of patients and their friends, there is little direct contact between the individual and the institution. Publicity bridges the gap between the two. Outside of what may be regarded as self-interest on the part of the management, the latter is under moral obligation to provide full information as to the work of the hospital. It is a duty to the public. One effect of publicity is that it today attracts to the hospital hundreds of patients who were formerly treated at home, in many cases much to their own detriment. The more that is known about hospital work and its steadily increasing efficiency, the better it is for the whole community.

Some definite person should be in charge of publicity. A thousand and one incidents occur during a single week at a hospital, which, if told, would excite interest and comment. Neither humor nor pathos is lacking. Under a constant routine, hospital officials are apt to grow blind to the features—picturesque, humorous, pathetic and romantic—that have new values and that are entirely unfamiliar to outsiders. Here is where a friendly news writer may well be called upon to assist, and in every community such an individual may be found. The admitting officers, house staff, nurses, social service workers and others connected with the hospital should be encouraged to notice and report anything of possible news value.

All this refers to articles in the press, which, after all, is the most direct and most successful method of publicity. But there are many other avenues for reaching the public which should be utilized to advantage. Publication of monthly and annual reports should be insisted upon, care being taken not to make them too technical or lengthy. Letters of appeal are an effective means of publicity. Illustrated folders for direct distribution in public gatherings and public places are likely to do much good in calling attention to the equipment and achievements of the hospital. These might also be mailed to prominent citizens. Occasional receptions direct attention to the personnel of the institution and extend the circle of well wishers. Last and best of all, are the enthusiastic encomiums of former patients on the way the hospital is conducted. By their united verdict an institution must stand or fall.

The success of this convention is in itself a striking testimony to the effectiveness of publicity.

I can do no better in closing than to quote some remarks of a well-known New York hospital authority on this subject. In a recent address he said:

"Cultivate good will. It is too much to expect that the general public will retain many statistics about your hospital. People read so much and so carelessly that their minds become like sieves, often with big holes in them. But, though they do not retain many facts, they do retain impressions, and it is their impressions on which they act. See to it, therefore, that, with the facts to justify it, you establish a reputation for doing a large work, vital to the community and permeated with genuine sympathy. There is a widespread impression that a hospital is a cold, cheerless, impersonal place, wrapped in officialism and tied up with red tape. As a matter of fact, a hospital is a place where people come in pain and find relief, come in weakness and go forth strong, come despondent and return with courage. There are few families that do not have grateful memories of what a hospital has done for one or more of their circle. Capitalize this feeling."

*Address delivered before the British Columbia Hospital Association, June 27, 1918.

QUERIES AND ANSWERS

A Wainscoting That Does Not Come Off

To the Editor of THE MODERN HOSPITAL:

I should like very much to know of a good wainscoting for the walls of an institution for children which can be trusted not to break and wear off like ordinary plaster. The children in my charge are many of them up and around, and the problem of the walls is a serious one.
SUPERINTENDENT OF CONVALESCENT HOME FOR CHILDREN

We believe that you will be interested in the experience of an eastern institution for the feeble-minded in which cement dado is used on the lower third of all the walls. An account of it is given in the September *Institution Quarterly*, published by the Public Welfare Department of Illinois, in which the author says:

"It was indeed a satisfaction to visit room after room, and not see any plaster off."

Cement dado is not hard to make, and it makes an excellent wainscoting if applied by an experienced plasterer. Good results depend on the care and experience of the journeymen, and users should follow the directions implicitly.

The Keene cement must be applied in a very thin coat which should be thoroughly trowelled and worked into the surface of the Portland cement base, and only the very best of ingredients should be used. With these precautions borne in mind, the plasterer should have no difficulty in following these directions:

A very firm backing is required—a solid brick or terra cotta partition, not wire lathing or anything of that sort. This wall must be thoroughly wet before the first coat is applied. It should be thoroughly soaked at about half-hour intervals on the day before the mortar is put on, either with a hose or with water applied with a brush or a pump.

The cement is applied in three coats—the scratch coat, the "brown" coat, and the skim coat. The scratch coat consists of not more than two pails of lime to every barrel of Portland cement, and a small amount of clean, sharp sand. In applying this coat, bear in mind the precaution about thorough trowelling.

The "brown" coat, which is applied within two or three days of the first coat, consists of equal parts of Portland cement and sand, which is mixed in small quantities just before the coat is put on. The "brown" coat can be put on within two or three days of the first coat.

The skim coat is made of the three casks of Keene's cement to one cask of Portland. In applying this coat, the following points should be observed: no cement should be applied to the wall except that which has been mixed immediately before using; only a small amount should be mixed at a time; it should be thoroughly mixed dry so as to obtain a uniform color before it is wet; a very little should be wet up at a time and applied so as to get the first set; it should be worked with a trowel and brush and plenty of water until it is perfectly hard and smooth-trowelled. The skim coat should be one-quarter inch thick.

There are a number of different makes of Keene's cement, both in this country and Europe, and in some cases their specifications differ slightly from those given above. In those cases it is best, of course, to follow the directions of the manufacturer whose cement you are using.

Country Branches for City Hospitals

To the Editor of THE MODERN HOSPITAL:

Should city hospitals have country branches? A city hospital caring for 400 acutely sick patients has been urged to establish a country branch. Is this desirable, and if so, on what grounds?
SUPERINTENDENT OF CITY HOSPITAL

The ordinary hospital ward, occupied mainly by patients acutely ill, is an undesirable place of residence for anybody except one who is in need of medical supervision and nursing care, and who cannot otherwise obtain such care. Justification for the prevailing type of ward is found in the limited resources of hospitals, coupled with the necessity of caring for large numbers of patients. A better or more highly individualized system of housing the sick would be relatively costly. We therefore build hospital wards, and exert ourselves to overcome, as far as possible, the dangers of infection and of vitiated air. But no healthy person would choose a large hospital ward as a sleeping room; and no convalescent, able to be out of bed, should be kept in such a ward during the day, or compelled to sleep there surrounded by acutely sick people at night.

In a city hospital caring for 400 patients, a census of convalescents (that is, of patients no longer needing confinement in bed) would show that there is an average of from 60 to 120 such patients in the wards at all times. These, for the most part, are patients recovering from surgical operations, who are in need of surgical dressings, and who, for this reason, cannot be dismissed from supervision.

Actual experience in London, where many hospitals have convalescent annexes in the country, has shown that when patients are removed from city wards to more wholesome country surroundings, wounds heal more quickly, and the recovery of bodily and mental tone is hastened.

The cost of caring for individual convalescents in a country branch hospital would be less than the per capita per diem cost in the parent hospital. A given period of treatment, divided between part-time in the city hospital and part-time in the country branch, would cost somewhat less than the same period of treatment in the city hospital alone. The country branch hospital, therefore, may be described as a means of obtaining better therapeutic results, in equal periods of treatment, at less cost; or it would produce still better therapeutic results in slightly prolonged periods of treatment at the same cost per patient.

Independent convalescent hospitals do not, as a rule, undertake to care for patients during the earlier stages of convalescence, when medical supervision and surgical care continue to be necessary.

S. S. GOLDWATER.

Make Use of Newspaper Publicity

Advertising is said to pay; why should it not pay for the hospital? The hospital can get some very good advertising at practically no expense in seeing that the local newspapers and magazines have stories of general interest to the public. The superintendent is always too busy to "nose out" such stories, and usually has no particular ability as a publicity agent anyway. Why not develop a good newspaper correspondent among your office force for this purpose?

Fig. 1. Cage ball for weak hearts.

Fig. 2. Mechanical drawing will be their means of livelihood.

In Our Reconstruction Hospitals

These pictures, reprinted here through the courtesy of *Carry On*, tell plainer than words what is being done for our disabled soldiers and sailors in the many reconstruction hospitals all over the country.

Cage ball for the men with "invisible wounds"—heart action that needs strengthening in this case—and practical training in mechanical drawing are among the many methods used to put our injured men back on their feet physically and mentally. These men playing ball at Lakewood, N. J., and absorbed in the class in mechanical drawing in the Letterman General Hospital, San Francisco, seem to find the work of rehabilitation pleasant as well as profitable and necessary. The San Francisco hospital offers its soldier-patients a wide range of curative and prevocational work. "An ear for an eye" might be the watchword of the blind man who is learning piano tuning. This trade requires some mechanical ability, but is not difficult to learn for the man who has a good ear. Men who were tailors before the war are teaching others who want to learn this trade at Lakewood where there is a tailor shop in which the returned soldiers do the fitting and pressing for the post while they are perfecting themselves in their new trade. Bedside cartooning is one profitable diversion which passes the time for the patients in the wards at Lakewood. One soldier is seen teaching another the foundations of the art.

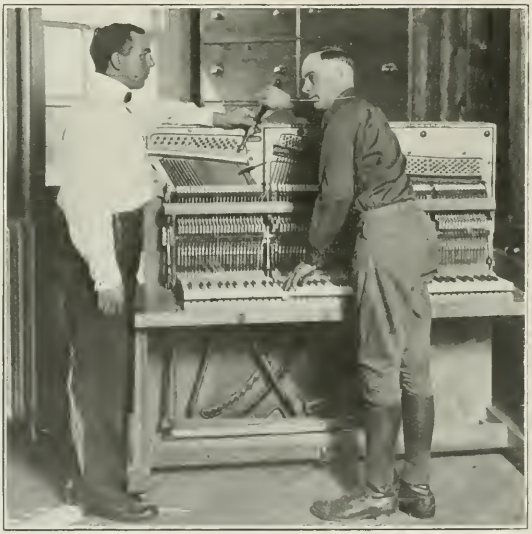


Fig. 3. Both instructor and pupil are blind but the work goes well for all that.

"Not an appeal for for charity," says the Government on the cover of the pamphlet, "What the Employers of America Can Do for the Disabled Soldiers and Sailors," and it is work like this which is the basis of the new attitude toward our veterans.

Fig. 4. In the tailor shop.

Fig. 5. Bedside cartooning.

OCCUPATIONAL THERAPY, VOCATIONAL RE-EDUCATION AND INDUSTRIAL REHABILITATION

Conducted by DOUGLAS C. McMURTRIE, *Director Red Cross Institute for Crippled and Disabled Men* and ELIZABETH G. UPHAM, *Advisor in Occupational Therapy, Milwaukee-Downer College.*

DIAMOND-CUTTING FOR DISABLED SOLDIERS*

An Interesting and Remunerative Occupation Carried On Under Best Hygienic Conditions—Convincing Testimonials from Workers—Steps In the Process

Early in the war Mr. Bernard Oppenheimer, the well-known diamond merchant, who had fought in the ranks during the South African war, conceived the idea of bringing back to this country an industry which for many years had been carried on principally in Holland and Belgium. He determined, if possible, to make it the means of employment to thousands of disabled soldiers and sailors.

With this idea he acquired a large tract of land in the Lewes-road, Brighton, and set about erecting a building which would be suitable for the carrying on of that industry, namely, the cutting and polishing of diamonds. The building having been erected, Mr. Oppenheimer was fortunate enough to find in Dr. Beckit Burnie, the principal of the Brighton Technical Schools, a gentleman who was eminently qualified to become its manager, and the Ministry of Pensions, having examined the scheme and given it its cordial approval, sent down a certain number of disabled soldiers, who at once commenced their training under the experts and foreman supplied by Mr. Oppenheimer.

It was in August, 1917, that a commencement was made with ten men. So successful was the experiment that a further area of land was acquired, and a range of buildings erected in which employment might be given to at least two thousand men. Every floor of these buildings consists of one long and lofty room, with a glass frontage, as the maximum of light is essential to the industry. Over four hundred disabled soldiers are now engaged in diamond cutting and polishing at the Brighton works, and the buildings now erected or in course of erection will accommodate a thousand more.

The industry is especially adapted for disabled men, and more particularly for the man who has lost a leg and finds it difficult to stand for any length of time without a sense of weariness, and often one of pain. It is a sitting occupation, one which is carried on in a bright and healthful environment, and it has this additional advantage —that the workman can perform his task effectively while enjoying the solace of tobacco.

The cutting and polishing of diamonds is not only an interesting occupation, but is one which is carried on under the best hygienic conditions. It is an occupation which compares favorably in the important matter of pecuniary reward with most of the trades recommended for disabled men. During the period of training, which is from four to six months, the wages paid are $6.87, but to every man engaged a minimum wage is guaranteed of $10 a week. The average wage now being paid to the men is $15 a week, and the experienced worker who shows diligence and ability may rise rapidly to $20 a week.

I turn from the economic figures to the human ones and mingle with the men who are sitting at their work with the sunshine of a Brighton November morning streaming in upon them. They lay aside their cigarettes, but not their work, to talk to me. Here is a disabled soldier handling a forty-carat diamond and surveying it with the eye of an expert before operating upon it. At $500 a carat this diamond is worth $20,000, and with skillful cutting it will be worth a great deal more. This man has come from the dragoons to the diamonds. He was a dragoon before the war. He was wounded and permanently disabled in the first battle of Ypres. It was while at Roehampton, being fitted with an artificial leg, that he heard of the diamond cutting. Before the war his pay was 25 cents a day; during the war it was 36 cents, and, now that he has lost his leg and can not go back to the profession of arms, his pay is $15 a week.

Here is another disabled soldier. In 1915 he was in a sale-room in London. Then he joined up, was wounded on the Somme, and lost a leg. He can not go back to his old work. His disablement prevents it. He was earning $10 a week before the war. When he went to the Ministry of Pensions for information as to where he was likely to get employment, he was recommended to apply to the manager of the Oppenheimer Works. He did so, and he is now earning $15 a week; and probably before the end of the year he will be earning $20.

Sitting next to him is a disabled soldier, who tells me that before the war he was a coal miner, but he prefers his present occupation. "In the old days I used to stand and sweat, sir. Now I sit and smile." He prefers the white diamonds to the black ones.

Another disabled soldier who is cutting a diamond tells me that he was a land surveyor when he joined up. He was disabled in August, 1915. He lost a leg, and when he was discharged that effectually prevented him from going about to survey land. All he could do was to survey the situation. He was at a loose end when he heard from the information bureau at Roehampton of a trade that would give him a living. He came to the Oppenheimer Works, has now learned a trade which will last him his life, and he tells me with a smile that, although he has lost a leg, he has fallen on his feet.

There are three processes in the conversion of a rough stone into flashing brilliance. The first one consists in cleaning the coarse stone of defective parts and splitting off the flaws. The second is the cutting, which gives the stone its form and in a rough way the number of faces which it shall have. Finally, there is the polishing, which gives to these faces their clearness and brilliancy.

The sawyer, when he finds a flaw, commences his work by inserting the diamond into a fusible cement which hardens as soon as it is cold and supports the stone. The cement is lodged in a kind of cup at the extremity of a solid handle, which the workman holds in one hand. He then takes in the other hand a second instrument furnished with a diamond recently cut, the edge of which projects sharply outside. Supporting the two tools on the border of the box placed before him on the table, he communicates to them a see-saw motion, rubbing on one of the stones the sharp end of the other. He then introduces a sharp blade, which he strikes lightly in order to separate

*Extracts from an article by George R. Sims in the Daily Telegraph, London, December 4, 1918.

the two pieces. Sometimes diamonds are sawn with a finely-tempered bow-saw moistened with olive oil and sprinkled with diamond dust.

The cutter uses somewhat similar instruments to the sawyer. He only forms about one-half of the faces, leaving it to the polisher to form the remainder.

The box over which the sawyer works is provided with a double bottom, the first of which is pierced with holes like a sieve. The powder of the diamond resulting from the rubbing falls into the second compartment, and the larger fragments rest on the sieve, where they can be easily collected in order to be cut again. The clips alone from one large diamond which was cut at the Amsterdam mills are said to have been worth $40,000.

Diamonds are polished on an iron plate rotating rapidly and impregnated with diamond dust and oil. The diamond that is to be polished is set in an alloy of lead and tin, which is given the form of a cone, of which the stone occupies the summit. The operation either for large or small stones is about the same. The worker may sometimes be able to polish several stones at the same time. The operation takes a long time and requires the exercise of extreme patience, but the result is certainly in every sense of the word a "brilliant" one.

From the beginning to the end everything depends upon the skill with which the diamond workers exercise their art. And all these skilled processes are now carried on at the Brighton works by disabled soldiers who before the war had not even a nodding acquaintance with precious stones.

* * * *

GOVERNMENT PLANS FOR DISABLED MEN

These Include Treatment, Artificial Limbs, Training, Financial Assistance, and a Job—Army, Navy, War Risk Insurance Bureau, United States Employment Service, Federal Board for Vocational Education, and Red Cross Are the Agencies Involved

There has been issued for general distribution, by the Red Cross Institute for Crippled and Disabled Men, a statement on the provision being made by the various government departments for the returning disabled soldier or sailor. It appears as a small folder and also as a poster for display on bulletin boards, in windows, etc.

The statement is addressed as much to the public as to the ex-service men themselves, for it has been found in the experience of the allied nations that public understanding and appreciation is essential to the success of any government program aimed at the restoration of the injured to self-support.

The statement, entitled "Facts of Interest to the Disabled Soldier and Sailor," has been approved as to accuracy by the various government departments concerned. The text follows:

The military and naval authorities will provide him, not only with ordinary medical care, but also with special treatment to put him in the best condition possible to return to work.

While he is under treatment in reconstruction hospitals maintained by the surgeon-general, United States Army, and the surgeon-general, United States Navy, he will be offered educational advantages, which will promote his recovery, put his time to good use, and improve his chances for the future.

If he has lost an arm or a leg, a temporary artificial limb will be furnished him at as early a date as possible, while he is still in the hospital. Later a permanent artificial limb of the most modern type will be provided by the Bureau of War Risk Insurance. It will be kept in repair and replaced when worn out, as long as he lives, at government expense.

After completion of treatment and discharge from the army or navy, if he remains permanently disabled, the Bureau of War Risk Insurance will pay him until the end of his life a disability compensation, which is intended as an aid in working out his future plans.

This compensation for disability is paid whether or not he has taken out a policy of war risk insurance.

After discharge from the service, if he is disabled to any considerable degree—so as to be entitled to compensation for disability—he is offered training for a skilled job in which his injury will not prevent his earning good wages. Experience of our allies has shown this to be entirely practicable.

Compensation for permanent disability will not be reduced or in any way be affected by what he may be able to earn. It is determined by his physical injury alone. He may have earned before enlistment $20 a week and be able after disability, by reason of having taken a course of training, to earn $40 a week, yet his compensation will be paid him just the same.

Training after discharge will be provided him at government expense by the Federal Board for Vocational Education, charged by Congress with the responsibility of restoring him to self-support.

During the course of training, in order that he may have no financial worries, he will receive either the same pay as during his last month in the service or his compensation for disability, whichever is larger. His family will continue to receive the same allotment and allowances as when he was in the service.

It is greatly to his advantage to avail himself of all opportunities of training, either before or after discharge. While it may be easy now for even a disabled man to get a well-paid but temporary job, the labor situation will be different in the years after the war when normal conditions return. If he wants to be independent and self-supporting in the future he must prepare now so that later on he will be a skilled worker and his services will be in demand.

When training is completed the government will find for him a desirable job. This service will be performed for him by the Federal Board for Vocational Education in cooperation with the United States Employment Service.

During the period of training and after, the American Red Cross, through its home service sections, will look after the needs of his family, and advise on any points in connection with which it can be helpful.

After he returns home and enters on employment the home service section of the American Red Cross will stand by as a big brother to help in any possible way to make successful his change from the world of the soldier back to the world of industry and commerce. In all this work the Red Cross recognizes the leadership of the government.

Employers are giving careful thought to the selection of jobs in which his services can be used to the best advantage—in which he can be paid good wages and earn them. The employers realize that what he wants is not charity, but the opportunity of self-support.

Labor unions are giving thought to the ways in which disabled men may best be replaced in their trades, and are prepared to assist the readjustment to the greatest possible degree.

The people of the United States are resolved that he shall have every advantage within their resource and every chance to make good and get back on his feet.

America is looking to her men, disabled in the splendid job overseas, to "carry on" after their return home, to continue into civilian life the standards of self-respect, honor, and courage of the A. E. F. She is looking to her disabled men to rank among the most useful and respected members of the community.

A friend comes as an ambassador from the heavens, bearing certain gifts of character or of service. Expect not all gifts by the hands of one ambassador, but receive gratefully whatsoever is brought to thee. Flout not the King's gifts because they are not other or more. If thou hast need of other gifts they will come in due season. Count what thy friend is to thee, and say naught of what he is not.

DEPARTMENT OF NURSING

Conducted by ANNIE W. GOODRICH, Dean Army School of Nursing and CAROLYN E. GRAY, Principal City Hospital School of Nursing, Blackwell's Island, New York.

Please address items of news and inquiries regarding Department of Nursing to CAROLYN E. GRAY, R.N., Principal, City Hospital School of Nursing, Blackwells Island New York.

A SQUARE DEAL FOR THE PUPIL NURSE

Three Reasons Given for Failure of Nurses to Win Shorter Hours—Tradition, Fear, and Expense—Public Opinion Will Force a Reform If It Does Not Come from Within

By CAROLYN E. GRAY, R.N., Principal, City Hospital School of Nursing, Blackwells Island, New York

The war is over, but coupled with the enormous sense of relief and satisfaction that accompanies this thought there is a keen realization that the reconstruction problems facing nursing schools are numerous and difficult.

There is no denying the awakened interest and *unrest* existing in our schools. The appeal of our Government for nurses, and the splendid response to that appeal, plus the publicity work of the nursing committee of the Council of National Defense, has stimulated many intelligent women to think of nursing as a field for education and future work. One of the inevitable results of this awakened interest has been to show up the weak places in our system; we have been favored with much wholesome criticism, which it would seem the part of wisdom to meet frankly and disarm, either by showing it is not deserved, or by changing the conditions which justify it. Out of this mass of criticism it is easy to select one condition which all critics attack most vigorously. I refer to the hours of work exacted of our pupil nurses. Just here it may be well to consider that the provision of proper care for the sick in our hospitals means continual care for twenty-four hours of every day, for seven days of every week, and for fifty-two weeks of every year. The easiest solution of this problem is to have two groups of workers, each covering a period of twelve-hour duty. As the easiest solution of any problem is the one most commonly accepted, this twelve-hour duty, modified by various concessions in the way of "hours off duty," is the one in vogue in an overwhelming majority of our nursing schools. It is true that some schools have been much more generous in their arrangements for hours off duty than other schools, but it is equally true that "hours off duty" refer almost invariably to day duty and not to night duty. In consequence an enormous number of schools are exacting eighty-four hours per week of night duty from pupils who are required to attend classes, prepare lessons and pass examinations! The system of twelve-hour duty has persisted despite the fact that for more than twenty-five years nurses, both individually and through their organizations, have agitated and worked for the adoption of shorter hours. It would seem that our efforts have been only half-hearted because one year ago just ten nursing schools in all the United States exclusive of California (where the hours are regulated by law) reported a system of eight-hour duty. Ten schools out of a total of 1,570!

Surely this should prompt us to analyze the reasons for our failure, and they appear to group themselves under three main headings:

1. *Tradition.*—Those who are familiar with hospitals and nursing schools know that the strongest deterrent to progress is found in tradition, and one of our most pernicious traditions has been that nurses should work until they drop, and then get up and work some more, and that to do anything less is unprofessional! Add to this, the attitude which accepts hard conditions as inevitable, and feels that to complain of them is disloyal, and you have a bulwark which has served well to justify and perpetuate a system that secures a maximum amount of work from a minimum number of pupils. This tradition, like many others, does not stand exposure to the limelight of public criticism. In an effort to bring the advantages of nursing education (and they are numerous) to a wider public, I have talked with alumnae members, with high school pupils, with mothers, with teachers, and club women. Invariably the long hours are attacked and tradition doesn't help one to defend them.

2. *Fear.*—Many superintendents who honestly believe in a system of shorter hours and who have willingly conceded them to other groups of workers in hospitals are afraid to extend this ruling to the pupil nurses, because of the shortage of applicants. They argue that "they can not shorten the hours, because it will take more pupils and they can not get enough pupils even now." What they fail to see is the viciousness of the circle; they can not shorten the hours because they can not get enough pupils and they can not get enough pupils because they *do not* shorten the hours. It is well known that the hospitals which maintain nursing schools of high standards have no shortage of applicants. The Army School of Nursing, which was organized to meet the need of the Government for a large nursing body, to be provided in the shortest possible space of time, startled us all by announcing an eight-hour day for its pupils. Here, if anywhere, one might suppose long hours would have been justifiable, and would have been supported by public opinion. But the Government has stood for a shortened working day, not only for its employees, but through President Wilson's championship, for labor at large. Could it do less for pupil nurses? It seems only reasonable to think that the shorter hours influenced to some extent the enormous response of applicants to this Army school. It seems equally reasonable that if all groups of people to whom the nursing appeal is directed attack the system of hours, our *fear* should be to maintain such a system in the face of general criticism, and our aim should be to meet the criticism by as prompt concessions as are possible without hardship to our patients.

3. *Expense.*—Almost all hospitals face a deficit at the end of each year, and the problem of introducing any change which involves additional expense is one that calls for very careful planning on the part of those entrusted with hospital funds. It is true that shortening the hours of duty will necessitate an increase in the number of pupils, though this increase will probably not be so great as may appear at first sight. We have learned that in other lines of work, shorter hours have increased the amount of work, improved its quality, and lessened the time lost because of illness. No amount of foresight or careful planning will entirely eliminate such unusual demands as the recent epidemic made upon nurses. One questions

whether nurses as a class would not have stood the strain of this emergency better and whether the serious illness and loss of life would not have been less if long hours of duty had not added the big factor of fatigue to their other handicaps.

It is inevitable that an increase in the number of pupils will increase the expense of maintaining a school but the question is *not* alone, "Can we afford to do it?" It also resolves itself into, "Can we afford *not* to do it? Can we afford to go on ignoring a just cause for criticism? Can we afford to lose the intelligent young women who would enter our schools if the hours were made shorter? Can we afford to go on, as one health commissioner publicly stated a few weeks ago, 'working pupil nurses such long hours that they are more susceptible to certain forms of disease than other workers?' Can we afford to ignore the lessons of the epidemic? Can any one hospital afford to ignore this question when it is inevitable that some at least will hearken to it, will shorten their hours, and will just as inevitably increase their number of applicants? Can we afford to train pupils in an atmosphere that savors of exploitation, and then elevate our virtuous eyebrows in surprise when a small number of graduates take advantage of such an unusual opportunity as the epidemic offered to exploit the public?"

Two months ago this magazine called for data from institutions in which the eight-hour day has been introduced. So far as one can judge, responses have not been forthcoming. And yet this problem has been the subject of much heated discussion, particularly during the past year. Moreover, one finds great unanimity of opinion regarding the desirability and justice of this measure. Why are we so slow about translating our beliefs into action? Would it not be well for the officials of each and every institution which depends upon a nursing school to analyze the motives which are holding them back? If these motives group themselves—as we believe they will—under our headings of tradition, fear, or expense, are they worth the ever increasing criticism of a thoughtful and awakened public? Are nursing schools to be the last to fall in line and adopt this reform? Will it come from within our ranks, or be forced upon us by an aroused public opinion which will not see pupil nurses worked for longer hours than the rank and file of laborers?

* * * *

Correlating Nursing and Medical Care

The subject matter in Dr. Paul H. Ringer's book, "Clinical Medicine for Nurses," is carefully selected in regard to relative importance from the medical as well as from the nursing standpoint. The material is well organized, presented in a systematic, concise, and concrete manner, entirely within the range of the apperception of the average pupil nurse.

Special emphasis is put on the observation of symptoms and detection of complications in the course of the various diseases. This, from the nursing standpoint, is extremely important and furnishes an excellent basis for close correlation of the nursing with medical care.

A brief description of the most important anatomical and physiological facts is given at the beginning of each topic, which aids greatly in making clear the pathological and clinical picture of the different diseases discussed.

The glossary at the end of the volume, containing a list of medical terms frequently used and very often misspelled, is exceedingly helpful.

Clinical Medicine for Nurses. By Paul H. Ringer, M.D., Member of Staff of the Asheville Mission Hospital, Asheville, N. C. Illustrated. Cloth, pp. 269, $2.00 F. A. Davis Company, Philadelphia, 1918.

Practical and Well Organized

A well written book for classes in home nursing is the "Text Book of Home Nursing," by Eveleen Harrison.

The material is especially well organized and presented in a simple popular style, readily understood by groups of girls and women of varying educational and social advantages.

The carefully worked out summaries at the end of each chapter aid greatly in emphasizing the important points.

The practical suggestions throughout the book are good, but could have been made stronger by the support of definite scientific reasons. It would have added to the value of the book if the nursing procedures described had been accompanied by illustrations representing the different steps in the carrying out of the various treatments. The importance of the prevention of disease has been emphasized, but the specific sources and channels of infection have not been stressed sufficiently.

Text-Book of Home Nursing. By Eveleen Harrison, Second Edition. Cloth, pp. 187, $1.10. The Macmillan Company, New York, 1918.

THIRD ANNUAL SESSION OF WEST VIRGINIA HOSPITAL ASSOCIATION

This Association Has Largest Official Representation of State Hospitals in the Union—Officers Elected for the Coming Year

The third annual convention of the West Virginia Hospital Association met in Charleston, West Virginia, December 30 and 31, and, upon adjourning, elected the following officers for the coming year: President, Dr. J. A. Guthrie, Guthrie Hospital, Huntington; first vice-president, Dr. Charles F. Hicks, Emergency Hospital No. 1, Welch; second vice-president, Dr. S. B. Lawson, Logan; third vice-president, Miss Noel, Princeton; secretary-treasurer, Miss Knight, superintendent Chesapeake and Ohio Hospital, Huntington.

The executive committee consists of Dr. J. A. Guthrie, Huntington; Dr. W. A. McMillan, Charleston; Dr. C. A. Wingerter, Wheeling, and Dr. P. O. Clark, Wheeling. Dr. H. H. Farley, Logan, is chairman of the membership and auditing committee, and the legislative committee is made up of Dr. George A. MacQueen, Charleston; Dr. W. A. McMillan, Charleston, and W. C. Lyon, superintendent of the Sheltering Arms Hospital, Hansford.

The time and place for the next annual meeting of the association is to be determined by the executive committee.

Before adjourning the association accepted the invitation of Dr. H. J. Moss, superintendent of the Hebrew Hospital, Baltimore, to join with Delaware, Maryland, Virginia, and the District of Columbia in the formation of an interstate association.

The association has an official representation of forty-three of the fifty-two hospitals in the state, which is the largest percentage of any state in the United States.

Establishment of a Station for Heliotherapy in the Dini Villa, Naples

The magnificent Dini Villa on the famous Posilipo hill at Naples has been requisitioned by the state for the establishment of a hospital for abandoned children who need special treatment. These wandering children have become very numerous during this terrible war. The institution bears the name "For the Children of Italy." The hospital has room for 100 patients, and the state has furnished ample means for carrying on the work.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.
Director of the Boston Dispensary.
Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

KEEPING UP THE FIGHT

Detailed Account of the Curative, Educational and Repressive Measures Which the United States Public Health Service Has Taken Against Venereal Disease

By C. C. PIERCE, M.D., Assistant Surgeon-General United States Public Health Service

Based on the authority of the Chamberlain-Kahn bill, described in the main section of this magazine, page 95, the United States Public Health Service has developed an extensive program of attack upon venereal disease.

Immediately following the declaration of war, the task of sanitating the area surrounding the military camps was put upon the Public Health Service. It was soon evident that the most important problem was to protect the military forces from venereal disease. To that end clinics were established by the service in cooperation with the Red Cross.

The patients treated at these clinics may be classed as voluntary and involuntary. In addition to those who came of their own volition, in response to advertisements, information obtained from friends, and other sources, numbers were brought to the clinic by the local and military police and the law enforcement division of the Commission on Training Camp Activities. The systematic examination of food handlers, barbers, manicurists, etc., was a prolific source of clinical material.

The provision of suitable quarters for infected persons detained for treatment was one of the greatest difficulties the service had to meet, and although there were general hospitals in nearly every one of the zones, these patients were herded in barns, almshouses and jails, where the lack of facilities, proper food, adequate nursing, etc., not only made the treatment of the cases extremely difficult and unpleasant, but had a decidedly degrading effect upon the patients.

Wherever possible, detention hospitals were improvised by the service with the aid of the Red Cross or local agencies. Primitive as these were, these detention hospitals have definitely proved what all public health men and women have long known but have never had the opportunity to demonstrate, that venereal diseases can be cured in a very much shorter time if the proper hospital treatment is given them.

There is no doubt but that the isolation of carriers limited the spread of venereal disease among the soldiers.

A system of follow-up and social service was carried on from the clinics and the detention hospitals with very good results. This work was very much handicapped, however, by lack of trained personnel. Hospital training schools for nurses have as persistently neglected to train their nurses with regard to the social aspects of venereal disease as the hospitals have neglected to extend treatment to the diseases themselves.

In addition to the "United States Government Clinics," as the clinics in the zones were called, there were established throughout the country many clinics. Some were new, some old genito-urinary and dermatological clinics attached to hospital dispensaries or medical schools which were brought up to date. Others were city dispensaries or out-patient services of state boards of health. Various arrangements were made depending upon local conditions and local resources. For the most part these projects were financed by the Chamberlain-Kahn Fund.

The educational work as carried on by the division has been enormous and gratifying. The following, an excerpt from a report of the division to the surgeon-general gives an idea of the kind and extent of work done:

Educational Activities.—The work of preparing materials, establishing contacts, and developing methods in educational work has been almost finished during the fiscal month. The following pamphlets have been published in addition to those issued previously: (3) "Fit to Fight"; (4) "Keep Them Ft"; (6) "Man Power"; (11) "Venereal Disease a Public Health Problem for Civilian Communities"; (23) "When They Come Home"; (24) "War on Venereal Disease to Continue"; (25) "The Appeal to Advertising Media"; (26) "Shall We Finish the Fight?"; (27) "Venereal Disease and the War." Two exhibits, one for the general public and one for young men and boys, are almost ready for the printer. Orders have been placed for 125,000 venereal disease placards, most of which are to be used in railroad stations and coaches.

Suppression of Venereal Disease Nostrums.—Letters have been mailed to forty-eight thousand five hundred drug stores requesting them to stop selling venereal disease nostrums. (Since November 15, about thirteen thousand pledge cards promising their cooperation have been received from druggists, signed.) Letters have also been sent to twenty-five thousand newspapers and other publications, asking them to cooperate by refusing the advertisements of quack doctors and sex nostrums.

Health Campaign Among High Schools.—Forty state secretaries of the Y. M. C. A. have definitely agreed to furnish their best men for systematic work in reaching the high schools in their various states with a health exhibit for boys in which facts of venereal disease and sex hygiene are incidentally referred to. This will be done under the supervision of the various state boards of health.

Library Cooperation.—Educational material has been mailed to sixty-five hundred libraries, and at the end of the fiscal month replies were coming in at a very encouraging rate. These libraries indicate a live interest in the problem, and a desire to cooperate in providing the best books for parents.

Health Sunday.—In conference with representatives of the national organizations of the Protestant and Catholic churches, it has been decided to hold a Health Sunday on January 19, 1919. All ministers of the United States will be asked to enlist the support of their congregations in the fight being carried on against venereal diseases. Material is being prepared for them now.

Conferences of Educators.—During the fiscal month the following conferences for educators have been definitely scheduled: at the University of Pennsylvania, November 22-23; at Yale University, December 6-7; at Newark, N. J., December 13-14.

Industrial Educational Work.—One officer of the Division of Venereal Diseases has spent full time during the month in the office of the Commission on Training Camp Activities in New York City, familiarizing himself with educational work among industries, and in arranging details for the transfer of the work to the Public Health Service.

Educational Work Among Draftees.—During the month a corps of nine special field men were sent into various states to give general direction to lecture work among drafted men, and to the distribution of a pamphlet, "Come Clean," prepared especially for these men. Unfortunately,

the influenza epidemic was at its height in most parts of the country at just the time when this lecture was to begin, and the results were greatly interfered with thereby. Pamphlets were distributed by the state adjutant generals to local draft boards as follows:

Arizona	10,574	Michigan	90,223	South Dakota	15,649
Arkansas	38,714	Minnesota	57,259	Tennessee	51,522
Florida	22,212	Montana	20,157	Texas	105,518
Idaho	11,634	Nevada	3,216	Utah	10,645
Illinois	170,426	New Mexico	8,665	Virginia	50,211
Indiana	70,170	New York	271,409	Wyoming	6,861
Louisiana	41,826	Oklahoma	47,629		

Reports from other states which have actually distributed the circulars will be received later.

On October 26, the following states had definitely organized lecture work for the men of the new draft: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Georgia, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maryland, Indiana, Massachusetts, Michigan, Montana, Nebraska, Nevada, New Jersey, New York, Ohio, Oregon, Rhode Island, Texas, Utah, Virginia, Washington, West Virginia, Wyoming.

Reports of attendance will follow.

Lectures Before Conventions and Various Organizations.—Eighteen such lectures were arranged.

Publicity Work.—Arrangements have been completed for the publication of a half-page and quarter-page article through boiler-plate service. Weekly news service sheets have been arranged for, which will be printed and distributed beginning November 20. Multigraph releases are also being frequently sent to a list of two thousand newspapers. Receipt of clippings indicates that this material is being used.

BOOKS RECEIVED FOR REVIEW

Personal Hygiene and Home Nursing. A Practical Text for Girls and Women for Home and School Use. By Louisa C. Lippitt, R.N., Assistant Professor of Correction Exercises, University of Wisconsin. Illustrated. Cloth, pp. 256, $1.28. World Book Company, Yonkers-on-Hudson, New York, 1918.

Accidents and Emergencies, a Manual of the Treatment of Surgical and Medical Emergencies in the Absence of a Physician. By Charles W. Dulles, M.D., Fellow of the College of Surgeons of Philadelphia and of the Academy of Surgery, and Consulting Surgeon to the Rush Hospital. Cloth, pp. 153, 45 illustrations, $1. P. Blakiston's Son & Co., Philadelphia, 1918.

American Red Cross Abridged Textbook on First Aid. General Edition. By Colonel Charles Lynch, Medical Corps, United States Army. Paper, pp. 202, 41 illustrations, 35 cents. P. Blakiston's Son & Co., Philadelphia, 1918.

American Red Cross Abridged Textbook on First Aid, Women's Edition. By Colonel Charles Lynch, Medical Corps, United States Army. Paper, pp. 190, 92 illustrations, 35 cents. P. Blakiston's Son & Co., Philadelphia, 1918.

American Red Cross Textbook on Home Hygiene and Care of the Sick. By Jane A. Delano, R.N., Chairman of the National Committee, Red Cross Nursing Service; Director Department of Nursing, American Red Cross; and late superintendent of the Nurse Corps, U.S.A. Paper, pp. 318, 34 illustrations, 60 cents. P. Blakiston's Son & Co., Philadelphia, 1918.

Information for the Tuberculous. By F. W. Wittich, A.M., M.D., Instructor in Medicine and Physician in Charge of Tuberculosis Dispensary in the University of Minnesota Medical School; Visiting Physician to University Hospital, Minneapolis. Cloth, pp. 144, $1. C. V. Mosby Co., St. Louis, 1918.

Education and Occupation of Cripples, Juvenile and Adult. A Survey of all the Cripples of Cleveland, Ohio, in 1916. Edited by Douglas C. McMurtrie, Director Red Cross Institute for Crippled and Disabled Men, New York City. Paper, pp., 227, illustrated. The Red Cross Institute for Crippled and Disabled Men, 311 Fourth Ave., New York City, 1918.

The maxims of wisdom are the pieces of glass in a kaleidoscope; they remain forever unchanged and in the same case; and every age shakes them into a new combination of colors.—Bulwer-Lytton.

HEALTH AND MODERN INDUSTRY

Conducted by BARROW B. LYONS
Superintendent Delaware Hospital. Wilmington, Del.

AN EXPERIMENT IN FAIR DEALING

How the Delaware Hospital and Neighboring Employers Cooperate to Secure the Best Treatment for Injured Employees Where the Law Is Inadequate

By a Local Correspondent of THE MODERN HOSPITAL

A very definite stand has been taken by the Delaware Hospital in regard to the payment of charges in cases of industrial injuries. The workingmen's compensation law of Delaware allows a maximum of twenty-five dollars for the medical, nursing, and hospital care of employees injured in the course of their employment. The responsibility for this payment rests with the employer who to protect himself insures in most cases with an insurance company which carries his risk. The insurance companies naturally take advantage of the law and no matter how long the patient may be in the hospital, nor how serious an operation may have been performed upon him, they pay no more than twenty-five dollars in any case.

This is manifestly not fair to the hospital for the charge of twenty-five dollars by no means covers the cost of treating the majority of accident cases. When the cost of caring for a patient is not paid to the hospital, someone is the recipient of charity whether it be the employer, the employee, or the insurance company. One object of the workingmen's compensation act is to relieve the employee of the responsibility of shouldering the cost of paying for medical attention for injuries incurred during his hours of work, the theory of the law being that the industry should bear the burden of this expense. If the industry is adequately insured the insurance company should assume the responsibility. But that is beside the point—what interests the hospital is that it is not adequately provided for by the law.

As a matter of fact Delaware manufacturers, construction companies, and transportation corporations have on the whole acted very fairly and honorably in the matter by assuming the whole responsibility for the hospital charges of their injured employees sent to the hospital, and have paid the balance over what the insurance companies have allowed upon the hospital charges. These charges have been at the rate of two dollars a day for ward cases with an additional charge of five dollars for the use of the operating room. Additional charges are made for x-ray examinations, the hospital receiving 50 percent of these charges and the roentgenologist the other 50 percent.

This arrangement is based upon the principle that the hospital is not a party to any agreement between the employer and employee or between the employer and an insurance company. It is cooperating directly with the em-

ployer who sends his injured employee to the hospital. When the employer sends the injured person to the hospital for treatment and selects the Delaware Hospital to render the service, he expects to pay the full charge for the treatment on a cost basis. The hospital does not earn a profit.

Table 1 shows what the Delaware Hospital received for the treatment of accident cases from industrial concerns for the first six months of 1918, and what it might have received if these concerns had not assumed full responsibility for the payment of their injured employees whom they sent to the hospital to be cared for. For the names of the concerns numbers have been substituted:

TABLE 1. CHARGES ON INDUSTRIAL CASES COLLECTED DURING FIRST SIX MONTHS OF 1918 COMPARED TO EMPLOYER'S LIABILITY TO WORKMEN.

Concern	Days Service	Charges Collected	Liability Under Law	Difference
1	1,211	$2,672.85	$ 704.60	$1,968.25
2	366	824.20	297.50	526.70
3	526	1,037.00	211.00	826.00
4	56	91.75	67.00	24.75
5	253	673.60	125.00	548.60
6	33	77.50	51.50	26.00
7	126	252.00	158.00	94.00
8	77	312.55	62.00	250.55
9	8	34.40	34.40	.....
10	222	444.00	114.00	330.00
11	9	18.00	18.00	.....
12	3	6.00	6.00	.....
13	178	307.50	25.00	282.50
14	1	2.00	2.00	.....
15	10	20.00	20.00	.....
16	3	6.00	6.00	.....
17	14	28.00	25.00	3.00
18	25	82.00	25.00	57.00
19	13	33.80	25.00	8.80
20	10	26.00	25.00	1.00
21	37	74.00	25.00	49.00
Totals	3,187	$7,023.15	$2,027.00	$4,996.15
Percentages		100%	28.9%	71.1%

Table 1 shows that only 28.9 percent of the charges collected in the first six months of 1918 for the treatment of employees injured in the course of their duty was covered by the workingmen's compensation act of the state of Delaware. The balance, or 71.1 percent, was paid out of the pockets of manufacturers who did not wish to shirk their responsibility in the matter but desired to cooperate with the hospital in seeing that the best possible service was rendered their people. Some of these cases, however, were charged for at more than the ward rate since the patients were treated as "semi-private" patients. Thus, in a number of cases, the hospital charges exceeded the maximum amount allowed by the workingmen's compensation law even before the fourteen days' limit for treatment had expired. For example, from concern No. 20, only one man was sent to the hospital. He was in the hospital for ten days, and the total charges amounted to twenty-six dollars. Actually, instead of providing for fourteen days' medical service, as the compensation law was designed to do, less than ten days' hospital services were provided for by the law with nothing in addition to pay a surgeon's fee.

Table 2 presents the service rendered by the hospital from a slightly different point of view. It shows that almost half of the cases of the injured employees sent to the hospital by industrial concerns remain in the hospital for more than fourteen days, the limit for which the workingmen's compensation law provides for payment. It also shows that the employer is not liable to the employee for the payment of 62 percent of the service rendered by the hospital, to say nothing of the payment of surgeon's fees, which amount to considerable in this type of accident or injury.

If the law was designed to protect the workingman from the need of receiving charity, it is evident that it would fall far short of succeeding if it were not for the fair-mindedness of most employers in and near Wilmington. Of course the insurance companies profit from this condition more than anyone else concerned.

TABLE 2. LIABILITY IN CASES AND DAYS OF SERVICE OF EMPLOYER'S UNDER WORKINGMEN'S COMPENSATION ACT OF DELAWARE.

Concern.	Industrial Cases—Total cases.	Industrial Cases—In hospital 14 days or less.	Industrial Cases—In hospital more than 14 days.	Days of Service—Employer liable for under law.	Days of Service—Employer not liable for under law.
1	35	14	21	519	692
2	23	16	7	160	206
3	12	5	7	116	410
4	6	5	1	30	26
5	5	1	4	66	193
6	5	4	1	26	7
7	8	5	3	84	42
8	4	3	1	33	44
9	2	2	0	8	0
10	4	1	3	63	159
11	1	1	0	9	0
12	1	1	0	3	0
13	1	0	1	14	164
14	1	1	0	1	0
15	1	1	0	10	0
16	1	1	0	3	0
17	1	1	0	14	0
18	1	0	1	14	11
19	1	1	0	13	0
20	1	1	0	10	0
21	1	0	1	14	23
Totals	115	63	52	1,210	1,977
Percentages	100%	54.8%	45.2%	38.0%	62.0%

As yet, however, the surgeons have received no fee for the care of these patients except in such instances as special arrangements have been made by individual surgeons with individual companies. In such cases the patient becomes a private or semi-private patient, and the charge is made accordingly.

This arrangement does not seem fair to the surgeon, and therefore the following resolutions were passed by the board of trustees of the Delaware Hospital last sum-

Effective January 1, 1919

SCHEDULE OF CHARGES

ADOPTED BY THE DELAWARE HOSPITAL
FOR THE TREATMENT OF INDUSTRIAL ACCIDENT CASES

Bed, board and general nursing, per day in ward . . . $2.00
Operating room fee . . . $5.00
X-Ray examinations (see schedule on page 4)
Laboratory examinations (see schedule on page 4)

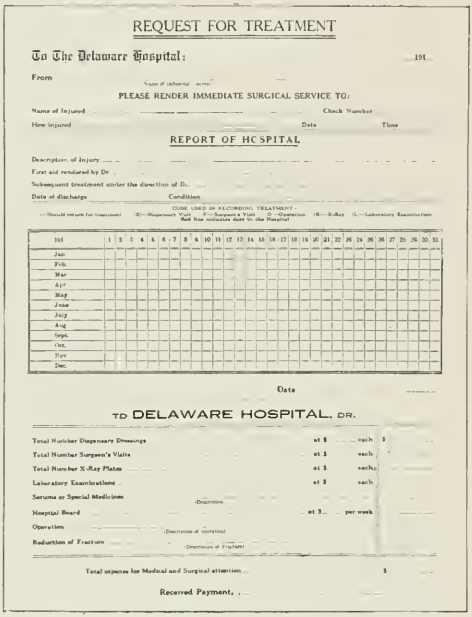
SURGEON'S FEES

IN ADDITION TO THE HOSPITAL CHARGES

SPECIFIC INJURIES

	A	B	C	D
	Flat rate, including first aid, operation and full treatment	Operation only	Total limit for full subsequent treatment	Separate charges for all subsequent treatment, not to exceed total in Column "C"
FRACTURES				
Upper arm	20.00	15.00	5.00	1.00
Forearm—one bone (shaft)	15.00	10.00	5.00	1.00
" both bones (shaft)	20.00	10.00	10.00	1.00
" Colles'	25.00	15.00	10.00	1.00
Femur	30.00	20.00	10.00	1.00
Lower leg—one bone	20.00	10.00	10.00	1.00
" " —both bones	25.00	15.00	10.00	1.00
Jaw	20.00	10.00	10.00	1.00
Ribs—one or more	10.00	5.00	5.00	1.00
Patella	40.00	20.00	10.00	1.00
Pubic bone	15.00	2.00	13.00	1.00
Acetabulum	50.00	30.00	20.00	1.00
Metatarsal or metacarpal	5.00	2.00	3.00	1.00
Fingers—one or more	5.00	2.00	3.00	1.00
Toes—one or more	10.00	5.00	5.00	1.00
Coccyx	15.00	2.00	13.00	1.00
Sacrum	15.00	2.00	13.00	1.00
Sternum	10.00	5.00	5.00	1.00
Spine	30.00	10.00	20.00	1.00
Lachrymal bone	10.00	5.00	5.00	1.00
Malar bone	10.00	5.00	5.00	1.00
Scapula	20.00	10.00	10.00	1.00
Clavicle	15.00	5.00	10.00	1.00
Nasal bones	10.00	5.00	5.00	1.00
Compound fracture	25% extra			
Operation for wiring of bones or plating	50% extra			
SPRAINS				
Shoulder	$5.00	$2.00	$3.00	$1.00
Elbow	5.00	2.00	3.00	1.00
Wrist	5.00	2.00	3.00	1.00
Hip	5.00	2.00	3.00	1.00
Knee	5.00	2.00	3.00	1.00
Ankle	5.00	2.00	3.00	1.00
All other joints	3.00	1.00	2.00	1.00

Fig. 1. First page of Delaware Hospital schedule of charges based on the schedule adopted by the hospitals of New York City.



REQUEST FOR TREATMENT

To The Delaware Hospital: 191

From

(Name of industrial corp'n)

PLEASE RENDER IMMEDIATE SURGICAL SERVICE TO:

Name of Injured — Check Number

How injured — Date — Time

REPORT OF HOSPITAL

Description of Injury

First aid rendered by Dr

Subsequent treatment under the direction of D.

Date of discharge — Condition

CODE USED IN RECORDING TREATMENT:
(—Should return for treatment) X—Dispensary Visit Y—Surgeon's Visit S—Operations (R—X-Ray (L—Laboratory Examination
Red line indicates date in the Hospital

191	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Jan																															
Feb																															
Mar																															
Apr																															
May																															
June																															
July																															
Aug																															
Sept																															
Oct																															
Nov																															
Dec																															

Date

TO DELAWARE HOSPITAL, DR.

Total Number Dispensary Dressings — at $ — each $

Total Number Surgeon's Visits — at $ — each

Total Number X-Ray Plates — at $ — each

Laboratory Examinations — at $ — each

Serums or Special Medicines (Description)

Hospital Board — at $ — per week

Operation (Description of operation)

Reduction of Fracture (Description of Fracture)

Total expense for Medical and Surgical attention $

Received Payment

Fig. 2. "Request for Treatment" used by the Delaware Hospital. It is kept upon the chart rack of the patient and on it are entered all the items for which charges may be made.

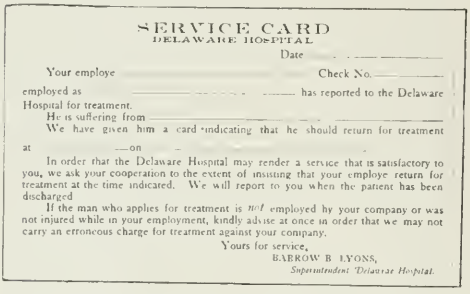
mer in order not only to protect the hospital but to protect the surgeon as well:

RESOLVED, that the Delaware Hospital establish a fixed rate of charges for surgeon dressings and operations to be applied in case of industrial accidents, and that the fees for surgeon services be collected by the hospital and paid to the surgeon rendering the service.

That the surgeons attending industrial cases must individually agree not to collect such charges directly from the employer or insurance company except in such cases as the surgeon may receive a regular salary from the employer or insurance company. The surgeons shall also agree not to hold the hospital liable for fees it is unable to collect, and shall consider all payments made by employers or insurance companies in payment of service rendered as applying to the claims of the hospital rather than to the surgeon until the claims of the hospital have been covered. It is further

RESOLVED, that the other hospitals in Wilmington shall be notified of this action of the Delaware Hospital and that their cooperation shall be requested.

As a result of this action a schedule of charges has just been adopted and went into effect on January 1 of this year. This schedule is based upon the schedule adopted by the hospitals in New York City. While the charges are extremely reasonable, they were gladly accepted by the surgeons as being better than receiving nothing at all for attending to cases which should be fully paid for. Moreover, when a resident treats the patient, as he does in cases of minor injuries, the fee accrues to the hospital. Figure 1 shows the first sheet of this schedule, which will be sent to any hospital interested in receiving a copy.



SERVICE CARD
DELAWARE HOSPITAL

Date

Your employe — Check No.

employed as — has reported to the Delaware Hospital for treatment.

He is suffering from

We have given him a card indicating that he should return for treatment at — on

In order that the Delaware Hospital may render a service that is satisfactory to you, we ask your cooperation to the extent of insisting that your employe return for treatment at the time indicated. We will report to you when the patient has been discharged

If the man who applies for treatment is *not* employed by your company or was not injured while in your employment, kindly advise at once in order that we may not carry an erroneous charge for treatment against your company.

Yours for service,

BARROW B. LYONS,
Superintendent Delaware Hospital.

Fig. 3. "Service Card." When a patient does not bring a request for treatment, this form is sent to his concern to procure a written authorization for treating him.

In order to avoid confusion and misunderstandings regarding the responsibility for paying for industrial cases, those plants which send in the greatest number of cases to the hospital have been furnished with blanks entitled "Request for Treatment." (Fig. 2.) These indicate the name of the corporation to which the bill is to be sent. They are placed upon the chart rack of the patient if he is admitted into a ward and a record of days of treatment, surgeon's visits, and other items for which charges may be made are recorded daily upon these forms. When the patient is discharged the charges are marked upon the same forms and it is sent to the concern sending in the patient. By sending the original authorization for treatment it is expected that bills will be paid promptly and without the correspondence back and forth which now very frequently takes place. The system has not been in operation long enough as yet to base any definite conclusions upon the experience obtained.

When the patient does not bring one of the requests for treatment, a form is sent to the concern sending in the case in order that written authorization for treating the patient at the expense of the company be obtained (Fig. 3).

The whole system was designed for the purpose of rendering an attractive service to the industrial concerns of the neighborhood, for this type of "business," it is believed, will become more and more important to the hospital as employers realize the value of caring for the health of their employees.

Another way in which the Delaware Hospital is attempting to render an attractive service is in the care of its dispensary patients. When laborers were sent to the dispensary for the treatment of slight injuries, they sometimes did not report back for redressings when they should. Infections not infrequently resulted for which the hospital was blamed; from the employer's point of view this was also disadvantageous. To cooperate with the concerns sending in their employees for treatment, a card was devised to indicate to the concern the date and hour upon which their employee should report back to the hospital for a redressing. The card is usually handed to the foreman in charge of the employee's department with instructions to see that he reports back to the hospital when he should.

These are simply suggestions as to how one hospital is attempting to render a better service to the industrial concerns in its neighborhood, knowing that it pays to have good friends and to render good service. The beneficial results are not always immediately reflected, but they are sure to bear fruit in the end.

* * * *

John B. Andrews, secretary of the American Association for Labor Legislation, recently said, "It is our duty during the war, and even because of the war, to take certain steps in advance for the protection of the national health." This statement might well be recast to read, "It is our duty during the reconstruction following the war, and especially because of the reconstruction, to take all advance steps for the protection and upbuilding of the national health."

It matters not how much wood I burn, but what I do when I get warm.—Thoreau.

DEPARTMENT OF DIETETICS

Conducted by LULU GRAVES.

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Home Economics Building, Cornell University, Ithaca, N. Y.

CONSERVATION IN THE PLANNING OF DIETS*

Nutrition Experiments Reveal Three Sources From Which Absolute Essentials for Adequate and Satisfactory Diet Are Obtained—Conservation Not Always an Economy

By E. V. McCOLLUM, M.D., School of Public Health and Hygiene, Johns Hopkins Hospital, Baltimore, Md.

I want to point out to you the application of the recent results of nutrition investigations, both with respect to experiments on animals and observations upon groups of human beings, and to correlate the experiences so that you may see the best method of planning an adequate diet. I want to point out furthermore that conservation does not necessarily mean saving in all cases. There are certain foodstuffs upon which we should not attempt to economize.

The first generalization that I want to make is this: That, in the course of the conduct of about thirty-one hundred feeding experiments with animals which we have made during the last eleven years, we have found that we can not make a satisfactory diet out of seeds and seed products, such as the cereal grains and products derived from them, the legume seeds, peas and beans, together with tubers, such as the potato, and edible roots, such as the sweet potato, turnip, radish and beet, used in connection with meat. Animals may have all these natural foods in the diet and still fall far below normal in their nutrition. For example although as much as 10 percent of the dry matter of the diet may come from round steak, ham or other muscle tissue of animals such mixtures as contain whole wheat, rolled oats, whole ground corn kernel, rye, or barley, when used with potatoes and any of the edible roots will, in all cases, fail to induce normal growth in the young or prevent the early aging of the adult. The reasons for this are threefold: (1) all such mixtures of foodstuffs will be deficient in three mineral elements, calcium, sodium, and chlorine. Only one of these is important in human nutrition because we always add sodium chloride or common table salt, so that, in human nutrition, the only serious danger with such mixtures on the mineral side is the shortage of calcium; (2) all such mixtures, however, will be deficient in a still unidentified dietary essential which is found abundantly only in butter fats, in egg yolk fats, and in fats derived from the interior of the cells of the glandular organs of animals, such as the fats which come from the inside of the liver cells, the kidney cells, the pancreas, or other glandular organs; (3) such food mixtures as are derived from the mixtures I have just been talking about, minus meats, will have proteins of relatively poor quality. There is a very great difference in the biological value of the proteins derived from different sources. The results of animal experimentation warrant the general statement that proteins of milk, eggs, and meats, are worth approximately six times as much as an equivalent amount of the proteins from either peas or beans, both of which are of surprisingly low value when fed as the sole source of protein.

Any mixture, then, of seed, tubers, and edible roots will be deficient in three respects: On the mineral side, with respect to the unknown dietary essential to which we have given the name "fat-soluble A," which is abundant only in certain fats and in the leaves of plants. All such mixtures not containing meat will have a poor quality of protein, while those containing meat will be deficient in regard to their mineral contents and their contents of the unidentified dietary essential which I just mentioned.

There are but two ways in which we can make up satisfactory diets. One of these is by the use of seeds and seed products, together with edible roots and tubers, either with or without meat, and fairly liberal amounts of milk or eggs. The other is through the use of seeds, tubers, edible roots, with or without meats, together with very liberal amounts of the leafy portions of plants. By the leafy foods I mean such things as spinach, lettuce, cabbage, celery tops and turnip tops, Swiss chard, and Brussels sprouts—in fact, the leafy portion of plants acceptable as human food.

Only a surprisingly small number of plants have leaves which are acceptable as human food. In this country we have gone almost to the extreme of using no leaves in our diet. We eat a little of certain leaves, but the high water content of them is such that the total amount of dry matter which we eat in this form is surprisingly small. Certain races, particularly the Orientals, the Chinese, the Japanese, and peoples of the tropics, eat very liberally of the leafy portion of the plant. and I venture the statement that it is the liberal consumption of leaves which has preserved them from extinction. They do not have a supply of milk, and their supply of eggs is small; and we have been unable, in many experiments on animals, to make up diets which will preserve the species through any great number of generations—in fact, even through three generations—on diets not containing milk, eggs, or the leafy portions of the plants.

Now the seed, the tuber and the edible roots are all in the same class in this respect, namely, that they are all the storage organs of plants and are composed of reserve food materials almost exclusively. There is in each of them but very little actual living protoplasm; they are not cell-rich structures. The few cells which were present in the immature seed, in the growing edible root, and in the tuber become engorged as the time of maturity approaches with reserve protein, reserve starches and sugars, and, in some cases, fats and oils, together with certain mineral salts. All the inner portion of the potato, the edible roots, and all the endosperm of seeds, are approximately the equivalent, in dietary properties, of a mixture of purified protein, purified starches, purified sugars and purified mineral salts. Irrespective of what chemical analysis may show them to contain in the way of protein or of digestible nutrients, we are unable to maintain long the life of an animal with such mixtures or to secure any growth whatever in the young. If we classify them on the basis of the character of their diet, there are two large groups of people in the world. One of these is represented by the peoples of a large part of India, of China and Japan, of the Philippine Islands, and of the tropics generally. These peoples have never used milk; they have never de-

*Read before the First Annual Meeting of the American Dietetic Association, Atlantic City, N. J., Sept. 24-28, 1918.

veloped a dairy industry; and the consumption of eggs is small except among the well-to-do. They are, with few exceptions, undersized, poorly nourished, and have a short span of life. Their infant mortality is the highest of any peoples in the world, and they have a peculiar mental lethargy which has led them to go on, generation after generation, contentedly making use of the very simple mechanical inventions of their forefathers. They have never achieved, in the fields of science, literature, art, or invention, as have the other peoples of the world. The second group of people, classified on the basis of the character of their diet, is represented in normal times by the peoples of Europe, North America, and a few other places. These people have had the same type of food as have the peoples of the Orient and the tropics, but in addition they have had, from the dawn of history, a fairly abundant supply of milk and, particularly in the North, up to the time of the development of the poultry industry, long before they became the civilized and progressive nations which they are today, an abundant opportunity to secure wild birds' eggs. As a result, they were physically far superior to the people of the tropics.

So important is it to differentiate between the value of milk, eggs, and the leafy vegetables, on the one hand, and, on the other, the rest of the foodstuffs which we are liable to eat, namely, the products of cereal grains, the legume seeds, the tubers, the edible roots, and meats, that, on the first of March, in speaking to the American Association of Home Economics, I coined the term "protective foods" to designate milk, eggs and the leafy vegetables. These are protective foods because they are so constituted with respect to the character of their protein and their content of certain mineral elements as to meet the physiological requirements of an animal; and they are so rich in what we term the fat-soluble A, an unidentified dietary essential, that they supplement the three kinds of deficiencies which will be present in all mixtures of whatever else we are liable to eat. Now we can correlate what I have just said with human experience in this country at the present time. I have discussed this matter with numerous men now who are in a position to criticize my statement if it is deserving of criticism, and they agree with me that wherever one finds large groups of people in the industrial class who are living in congested districts in large cities and who go to the store and purchase their food supply, one will find a high mortality from tuberculosis in nearly, if not all, cases. In the selection of their foods this class is, without exception, making the serious mistake of trying to live on wheat flour, degerminated corn meal, rolled oats, polished rice, potatoes, and to some extent, sweet potatoes and the meats. There are many of the poor wage-earning classes who use meats liberally. They do not, as a rule, purchase milk or eggs; nor do they eat liberally of the leafy portion of the plant except, perhaps, during a short period of the fall when cabbage is cheap and abundant.

In the city of Baltimore we have about six hundred thousand population, one-sixth of whom are negroes, and this one-sixth of our population furnishes and has furnished for years about 40 percent of our total annual death rate from tuberculosis. Our death rate from this disease is very high, and our city is one of the three most unfortunate in this respect in the United States. Through the visiting nurses of the city health department in Baltimore, I have learned pretty definitely what both the negroes of Baltimore and the white people of the same economic basis are trying to live on. They are trying to live on this list of foods which I just enumerated—bolted wheat flour, degerminated corn meal, polished rice, rolled oats, potatoes, sweet potatoes and meats. During a portion of the year they use cabbage, but they do not use milk, eggs, or the leafy vegetables in anything approximating adequate amounts. Now the prevalence of tuberculosis among them is, I believe, to be correlated with the character of their diet.

We have on numerous occasions tried experiments which illuminate this subject. Animals which have grown up on a highly satisfactory diet and have lived about one-fourth their normal span of life have been put upon food mixtures derived from seeds, tubers and edible roots, with or without meats. We have made about seventy-five or eighty such experiments now, using as many as six or seven perfectly wholesome seeds, and, in all cases using perfectly wholesome natural foods, and have confined our animals to diets of this class. Instead of living the normal span of life and maintaining the characteristics of vitality and the appearance of good nutrition and strength during the greater portion of their life, they all are very old-looking and are ready to die by the time they have reached about two-thirds of the normal span of life. They will age at least twice as rapidly from the end of the first quarter of life on diets derived from foods which are functionally storage organs as they would if they were on a diet in which there was a liberal amount of one or more of what I term the "protective foods," milk, eggs and the leafy vegetables.

This is a very important matter, because many institutions are attempting to keep their inmates week after week and month after month on a diet derived largely from the endosperm of seeds, together with the two important legume seeds, peas and beans, using them in connection with potatoes, more or less meat, and a minimum of milk, eggs, and the leafy vegetables. They are not difficult to secure, but, as they are the more expensive foodstuffs, the tendency is to reduce their consumption to the minimum. The low standard of health in many such institutions may, I venture to say, be directly the result of long adherence to a diet lacking in the three protective foods. In the city of Baltimore we have no less than seven institutions for the care of homeless children. One of these, last February, had not a death in seven years. Still another had had no death in 1917. At the other extreme stood one institution in which 23 percent of the inmates, numbering between two and three hundred, had died in the past year. Still another had lost 20 percent of its inmates in a year. Upon investigating the diet of the children in these two institutions, I found the purchases of the three protective foods almost nil. In one case, a home with about two hundred and thirty children, the milk purchases amounted to only sixteen quarts per day, and this appeared to be chiefly consumed by the attendants. Almost all these children had tuberculosis. Tuberculosis, as is well known, is a transmissible disease, caused by a micro-organism. The white people of Baltimore breathe the same air, with the same dust, every day as do the negroes in that group which suffers seriously from this disease; but the better-nourished walk immune through the same streets as are used by those who become victims of tuberculosis.

There is another disease which, so far as I can tell, is promoted in its seriousness by faulty diet in somewhat the same degree as is tuberculosis. I refer to pellagra. I have on a number of occasions had the opportunity to discuss, with Dr. Joseph Goldberger, of the Public Health Service of Washington, his own investigations in relation to pellagra. Dr. Goldberger has made a very careful study of the etiology of this disease, and he is in full accord with my statement that the people who are suffering

from this disease throughout the south are attempting to live too largely on products derived from the endosperm of seeds. The cereal grains, the legume seeds, together with tubers, molasses, and more or less meat, principally pork, make up almost their entire food supply. They do not use milk, eggs, nor the leafy vegetables liberally. At the annual meeting of the American Medical Association in Chicago in June Dr. Goldberger presented a most remarkable study of a correlation between the use of milk and the prevalence of pellagra in the population of Spartanburg County, S. C. He has found—and his findings correlate satisfactorily with the findings of investigators in animal nutrition—that people who use milk liberally do not have pellagra. The same would be true, I venture to state, if they used liberal amounts of eggs. It is, however, not possible to secure the best results in human nutrition by making the leafy portion of the plant the sole protective food. We are not anatomically suited to the consumption of large amounts of leafy food. That is the reason why the inhabitants of the far East and of the tropics have not succeeded better with their diet in which the leaf is almost their sole protective food; they can not eat enough of it. They can partially correct the faults in whatever else they may eat by the consumption of very liberal amounts of leaves, but they can never attain the optimum of nutrition on such a diet. I have inquired of those having experience in these countries, physicians, missionaries and foreign students, and all agree that the peoples of the far East and of the tropics use surprisingly large amounts of leafy foods as compared with what we use in this country.

Dr. Goldberger has caused the disappearance of pellagra from several institutions where he has gained control of the diet, merely by the introduction into the diet of liberal amounts of what I term the protective foods. In his early writings there was some error. A few years ago, Dr. Goldberger believed that the legume seeds, particularly beans, were highly protective against pellagra. He has now abandoned that view. The legume seeds have no peculiar dietary properties; they are seeds, the storage organs of the plant, and they have only the dietary properties of seeds in general.

Pellagra, I believe, has been correctly judged by the Thompson-McFadden Commission and by Jobling and Peterson of Nashville, Tenn., to be a disease which is communicable. It is, in all probability, caused by a microorganism. The matter is not fully settled, but the probability that this is true is very great, and I venture to say that pellagra, like tuberculosis, is a disease of sufficiently low virulence that it does not form a menace in any large group of people who are properly nourished. I may add that the efforts of the medical profession for several decades to discover under what conditions the tuberculous patient has the best possible chance of recovery have come essentially to the following principles: The patient is kept in cool, fresh, dust-free air. He is kept at rest and is fed a diet in which milk and eggs find a very prominent place. He is kept in the fresh air and at rest, because if he has a lesion in his lung, it is injurious to introduce dust and bacteria into that lesion, and, if he has a delicate scar tissue, exercise is apt to damage it. His fever is kept down by keeping him at rest, and his appetite is stimulated by keeping him in cold air. The one other thing which gives him the best chance for recovery is the taking of a diet regularly in which milk and eggs—and I should add, also, the leafy vegetables—are abundant. This diet raises his powers of resistance and promotes his recovery. The use of the leafy foods in the feeding of the tuberculous patient has not been appreciated. I feel confident that a much more liberal use of the leafy portion of the plant in tuberculosis sanatoriums would be followed by most excellent results.

At the present time there is a very serious situation in respect to the dairy industry, and I have made it my business in recent months to do what I can to correct this growing trouble. A year ago there was a sudden dropping off in the purchases of milk nearly everywhere in this country, but particularly east of the Mississippi River. The milk purchases in practically every large city east of the Mississippi fell off anywhere from 20 to 50 percent in the course of a year. This was due solely to an unavoidable rise in the cost of milk. Milk is, however, not a highly attractive nor a highly palatable food. Indeed, there are but two groups of foods that are highly acceptable to the human palate; one of these is the meats and the other, certain of the fruits. All other foodstuffs have a relatively low palatability; they are acceptable, and we take them regularly—more regularly as they are more nearly flavorless. Few of us will adhere day after day to eating the more highly flavored roots or tubers. Carrots and turnips are not acceptable at every meal, nor every day, as are potatoes, which are almost without flavor. The reason milk has not been purchased with greater regularity and with greater liberality is that it is looked upon as an expensive food, and one not particularly attractive. Meats are so attractive that even the wage-earning classes purchase meats in liberal amounts, irrespective of the fact that these are very expensive and are of much less value than milk is in correcting dietary faults in other things which they eat regularly. In general, meats are for them a poor investment, but it is the appetite which prompts their purchase, irrespective of the fact that the more appetizing cuts have doubled in price within the last year and a half. Purchases of milk fell off so greatly that last year there was a great surplus of dairy products, butter, dried and canned milks, and cheese, especially in the East. The public ceased to buy, and, as a result, the products quickly accumulated. The producers became greatly discouraged and despondent.

The situation of the producer can best be illustrated by the story which a gentleman near Des Moines, Iowa, who has been in the dairy business for thirty years told me. He said that thirty years ago he could purchase bran, one of the more important dairy foods, for $4.50 a ton in Des Moines. At that time milk sold for five cents a quart. On the day I visited Des Moines, in April, bran was $39.50 a ton, and milk twelve cents a quart. The cost of labor had, of course, risen in proportion to the cost of foods. There was no longer any money in the milk business. Every time the price rises the local press makes a great fight, ostensibly—and, in many cases, in good faith—to protect the purchasers against what it assumes to be an extortion, and this helps to destroy the dairy industry. It is a matter of the greatest moment that we continue the purchase of milk irrespective of the rise in cost. Cut on the meat purchases but never on the milk. Eggs, which are the only food we need to consider in comparison with milk, do not compete with milk on the basis of price for equal amounts of protein or energy. It costs approximately twice as much on the basis of protein or of energy, to get protective food in the form of eggs as in that of milk, and milk has somewhat greater protective qualities, in that it corrects a little better the dietary faults of seeds, tubers and edible roots than do eggs. Eggs, however, are superior to milk in palatability. They should be used in moderation for their appetizing quality, to vary the character of the diet, and for their

peculiar role as protective foods. I know of several hospitals in which the question of milk purchases is now a very serious thing. They are cutting down on milk because of want of funds, but I want to sound this note of warning—that there are but three kinds of food which can not be compared on a money basis, on the basis of protein content, or on that of energy values, with any other foods which we eat; and those three foods are milk, eggs, and the leafy vegetables. You can not compare the cost of one of these three foods with that of the cereal grains, the tubers, the edible roots, or meats. They have a different quality, a quality which is indispensable, and we must keep up the consumption of these foods, or our failure to do so will promptly be reflected in the standards of our public health and efficiency.

Abstract of Discussion

DR. MARSHALL: The North American Indian seems to be an exception. Does he take much milk?

DR. MCCOLLUM: The question is asked, how did the American Indian develop as he did, being largely a carnivorous man? The same question would, of course, apply even better to the Eskimo. The explanation is this: All the Indians in America were by no means carnivorous people. If you will examine volume 34 of the Bureau of American Ethnology, a volume by Dr. Hrdlicka on Physiological and Medical Observations on the North American Indian, you will find that the Indians were accustomed to eating very liberal amounts of the leafy foods. In part, the explanation of their success is this; what I said about meat applies to muscle tissue meats. These are the meats which we use almost exclusively and which form the only highly appetizing cuts. The glandular organs, such as the liver, kidney and sweetbread, have very different dietary properties from the muscle tissue; these are cellular organs and are highly actively functioning protoplasm. We have had a very considerable number of experiments with carnivorous diets and through inquiry of keepers of zoos, of famous hunters, and of those who have visited the far North, have arrived at the conclusion that the success of the strictly carnivorous animals, including man, rests largely on the order in which they select the portions of their prey. The carnivora, on killing an animal, first take blood. This is their first choice of the tissues, and they take it as long as it flows from the large veins. The next choice of the carnivorous animal is the glandular tissues. They open the abdomen and eat liver and kidneys as their second choice. Their third choice is the softer ends of the bones, which they eat at leisure. The last choice of the carnivorous animal is muscle tissue. Not long ago I was assured by a botanist who had recently visited the North, that this practice prevails among the Eskimo on the Arctic American coast. When they kill a reindeer, their first choice of dainties is blood, and they take it while it is warm and fresh. Their second choice is the glandular organs. They eat liberally of fats and of muscular tissue, but they get something from the glandular tissues that they would never get from the muscle tissue.

MISS WELLS, Brooklyn, N. Y.: I want to ask about the protective qualities of dried milk.

DR. MCCOLLUM: I can discuss that only in relation to nutrition aside from the scurvy. There is too much argument and too warm a discussion among investigators on the question of scurvy to permit me to enter into that question here today. However, I will say this—that, with such species of animals as do not suffer from scurvy, we have not been able to demonstrate any depreciation in the dietary qualities of milk in the processes of drying, evaporating, or sterilizing. The deterioration in the case of canned milk, especially, lies apparently only in its less appetizing qualities. In some cases, especially in the test of sweetened evaporated milk, where the preservation is not due to sterilization but largely to the concentration of sugar, such milks may be in bad bacteriological condition. Dried milks are, as a rule, in excellent bacteriological condition, and I see no reason to condemn them. I do not, however, wish to recommend either dried or canned milks for the feeding of young infants. My advice in the feeding of young children is confined to this: Get the freshest, the cleanest, the best of milk for your children; take care of it after you get it, and feed it to them in clean bottles. If an infant develops anything, take him to the physician and let him tell you what to do. One can give no general, sweeping advice which would fit all cases, and it would be dangerous for me to attempt it:

MISS LULU GRAVES, Chairman: What about the effect of dehydration on green vegetables?

DR. MCCULLOM: In this case I must limit my reply in the same way I restricted it in the case of milk, namely, to what we know about the dietary properties of dried, leafy foods and what we have learned in experiments with those species of animals which do not suffer from scurvy. In all such cases, we find no demonstrable deterioration in the dietary qualities of the leafy foods in drying, either in the sun or in a current of warm air.

DR. MARSHALL: Are the protective qualities of the leafy foods lessened by cooking?

DR. MCCULLOM: If they are lessened by cooking, the deterioration is confined solely to their special role in the prevention of scurvy. I cannot discuss in detail the question of scurvy here today. It is too complex. The dried leaves, however, thoroughly cooked, even heated under pressure to the extent to which canned goods are usually heated in processing for sterilization, and fed to those species of animals which do not suffer from scurvy, seem to have undergone no deterioration which we can demonstrate by animal experimentation.

* * * *

NEWS NOTES OF DIETITIANS

Miss Eleanor Wells has given up her work as dietitian in Brooklyn Hospital, Brooklyn, N. Y., in order to organize a course of study for dietitians at Teachers College.

In addition to her work in Teachers College, Miss Wells is giving the course in dietetics to the nurses of St. Luke's Hospital, New York City.

The committee on membership of the American Dietetic Association will meet soon to take action on all applications now in their hands. All who wish to become members should send in applications at once to Miss E. M. Geraghty, New Haven Hospital, New Haven, Conn. Early enrollment assures your name getting on the mailing list.

Miss Ardelle Ferguson, who has been dietitian at the University Hospital, Augusta, Georgia, is returning to her home in Ohio. Miss Lydia Humphrey, formerly of Akron City Hospital, Akron, Ohio, succeeds Miss Ferguson at University Hospital.

Miss Irene Willson has accepted the position of dietitian at Akron City Hospital.

The Alimentary Ration in Hospitals on Land and on Hospital Ships

L. Sestini discusses this subject in the *Annali di medicina navale e coloniale* of Rome.

The author comes to the conclusion that the ordinary alimentary rations in Italian hospitals and on hospital ships fill the theoretical requirements of modern nutrition, but he finds that in the hospitals on land the ration is too small and the fats are not represented in sufficient quantity. In the Italian hospitals the wine ration was abolished in 1916 by ministerial decree and is only allowed on medical prescription. On hospital ships the patients still receive wine with their meals, but the author thinks that the wine ration could be abolished here, also, without any disadvantage.

Duplicate Requisitions for Repairs

A simple method of keeping track of the repair work being done by the hospital mechanics, is to require that all requisitions for repairs be sent in to the superintendent in duplicate, the carbon for each to be filed until the original is returned with the time spent in making that repair marked upon it.

BULLETIN OF THE AMERICAN HOSPITAL ASSOCIATION

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Institutional Membership

PLEASE SEND IN YOUR APPLICATIONS

Since the publication of the list of fourteen applications for the institutional membership in the January number, applications from the following have been received:

The Anna Jaques Hospital.....Newburyport, Mass.
Franklin Square Hospital.....Baltimore
Knickerbocker Hospital.....New York
The Mercy Hospital.....Pittsburgh
St. Luke's Hospital.....Davenport, Ia.
West Philadelphia Hospital for Women.....Philadelphia
Martin's Ferry Hospital.....Martin's Ferry, Ohio
Union Hospital.....Fall River, Mass.
Youngstown (Ohio) Hospital Assn.
South Side Hospital.....Pittsburgh
St. Luke's Hospital.....Philadelphia
Monmouth Memorial Hospital.....New Jersey

Communications explaining the new plan of institutional membership in the association, as adopted at Atlantic City, have been sent with application blanks to all of the hospitals represented in the association. The advantages of such membership have been explained in the bulletins of the association and the editorial columns of this journal. Copies of the constitution have also been printed herein, and reprints are now available to members. The application blank, however, contains all information relative to institutional membership. All applications will be placed before the membership committee shortly. The secretary takes this opportunity to urge the hospitals to send in their application blanks at an early date. If such blanks have not been received, they will be sent out immediately upon request.

Twenty-First Annual Convention

September 8-12, 1919, will be the dates for the Twenty-first Annual Convention. This change from the dates announced in the January number was found to be more satisfactory to all concerned, and particularly the American Dietetic Association, which will again meet jointly with the American Hospital Association.

The Gibson Hotel will be official headquarters for the convention. With the appointment of the committee announced in the January number, plans for papers and discussions, as well as for the commercial and non-commercial exhibits, are now going forward.

Recommendations of the Commission Appointed by the Governor of Ohio to Make a Study of the Hospital System and Laws of the State

Following the adjournment of the Eighty-second General Assembly in April, 1917, the Governor of Ohio appointed a commission to study the hospital system and laws of the state, as well as the system of medical practice regulation. The complete report of the commission was filed with the Governor on January 4, 1919. The legislative proposals will be introduced in the present assembly, which convenes in January.

A digest of the hospital report and recommendations is published as a part of this bulletin. It should be of interest to hospital trustees and other officials. The complete report will be published and distributed by the Cleveland Hospital Council.

Preliminary Statement

The study of Ohio's present system of laws relating to hospitals and the work of outlining constructive suggestions which will be fundamentally useful in obtaining much needed health and welfare objectives has been somewhat difficult. Useful local, general information has been easily secured, but little has been found in the laws and experience of other states which is of use or adaptability to the Ohio situation. The scope of the inquiry has been of necessity limited. No study of Ohio's county infirmary system has been attempted (such a study has been made by the Health and Old Age Insurance Commission and its findings are commended to your attention); no study of our tuberculosis hospital and dispensary system has been undertaken because the development is far behind the legislative program enacted by the Eighty-second General Assembly; and no study has been attempted of the present system of management of the state institutions, many of which are hospitals, by the Ohio Board of Administration. The report and recommendations deal in particular with the present system and laws relating to the so-called private hospitals, with especial regard for their relation to the state. In many respects both are elementary.

Numerous proposals have been considered as the basis for constructive executive and legislative action. Two fundamental lines of action and procedure are possible:

1. The state should adopt a system of state control of private charitable hospitals and dispensaries to the extent that minimum standards of operation should be provided, as well as a corps of investigators and inspectors whose duty it should be to enforce these standards under the direction of some state department.
2. The state should adopt a system of reasonable supervision and regulation of private charitable hospitals and dispensaries to the extent that the best interests of the public health and public welfare in general shall be protected.

The state control proposal can be discarded with little discussion. Little can be found in the experience of other states that would justify even a limited application of it in Ohio, even if more than a few people could be found in favor of it. The state has proceeded already too far along the line of the other extreme. The present, therefore, is such executive and legislative action as will help to bring about a mutually helpful relation between the state and the hospitals. It should be a relation "of that intimate and cooperative nature which will more effectively make for the best interests of all concerned." The second plan is therefore recommended, and the carrying out of the following specific recommendations should be a step in that direction.

This recommendation is made in recognition of the fact that the state itself has duties to perform, as well as obligations to meet, toward the hospitals and dispensaries over which it has responsibility and supervision. These obligations can best be met, not by sending a horde of meddling investigators, inspectors or chief examiners from half a dozen different departments, whose authority is not clear and whose duties and responsibilities conflict

and over-lap, into the hospitals of the state, but by centralizing such supervisory authority as is necessary in the hands of a single state department and the adoption by that department, within legislative limits, of sound, constructive hospital policies, not in especial interests of any particular profession but solely in the interests of public welfare.

These recommendations would in no way conflict with the legislative proposal to reorganize Ohio's county health administration system as advanced by the Ohio Health and Old Age Insurance Commission. If that proposal is enacted into law it would result in closer working arrangement between the county and the state health departments. And if the state department is given additional authority as to hospitals as recommended herein, the county health officer could, as directed, act as the representative of the state department of health in various matters pertaining to hospitals. The county health officer plan as proposed by the Health and Old Age Insurance Commission is, therefore, highly commended.

Hospital Recommendations

RECOMMENDATION

The State Department of Health should, under authority already vested in it, create a Hospital Bureau.

DIGEST OF DISCUSSION

"The greatest need of Ohio in the hospital field today is the establishment of a central bureau in some state department, preferably the State Department of Health." No extended argument is needed in support of this recommendation. State health activities are already centered in the department of health. Hospitals and dispensaries are an important factor in the work of protecting the public health. The proposal is consistent with the modern tendency in national and state health organizations to align hospitals with the health department. The department already has authority to create such a bureau.

RECOMMENDATION

Legislation should be enacted vesting additional authority in the State Department of Health as follows:

1. To define and classify hospitals and dispensaries.
2. To require all existing hospitals and dispensaries—public or private, state, city, or county—to register with the State Department of Health within sixty days after the passage of this act; such registration to include name of institution, date of incorporation, if any, classes of patients cared for, names of controlling board and officials, and other similar information.
3. To require all hospitals and dispensaries to report annually to the State Department of Health on uniform hospital report blanks provided by that department. The information to be reported should include: under "Work Done," the number of pay patients, part-pay patients, free patients, and public charges cared for each year, and the number of days of treatment given each group; the number of dispensary patients, and accident and emergency patients; general information as to hospitals, beds, nursing, medical and other facilities; under the heading "Cost of Work Done" should be included income from patients, contributions, and capital income; under "Expenses" should be included operating expense, corporation expense, expenditures for permanent improvements, and such other general information as the department may require.
4. To transfer authority now vested in the Board of State Charities to inspect maternity hospitals and lying-in hospitals to the State Department of Health.

DIGEST OF DISCUSSION

It will be necessary to know what constitutes hospital or dispensary as a basis for a closer working relation between the state and such institutions. Our statutes do not now contain any such definition with the exception of an attempt to define lying-in hospitals and maternity boarding homes in Section 6227 of the General Code. Experience has proven that many difficulties are encountered when an attempt is made to enact legislation containing exact definitions of this kind. The other alternative is to give the proper state department discretionary authority to make such definitions and classifications. For purposes of the proposed legislation there can be no reasonable objection to giving such authority to the State Department of Health.

Ohio has no accurate information regarding its hospital and dispensary facilities. Such information is a prime essential as a basis for any constructive plan to increase hospital facilities in the state, for sickness prevention activities, or as one basis for any plan for sickness or health insurance. This proposal practically amounts to a census of Ohio's present hospital and dispensary facilities.

This proposal for annual hospital and dispensary reports would help to protect such institutions themselves against arbitrary action prompted by a recent decision of the Supreme Court in the case of Treasurer of Cuyahoga County vs. the Physicians Hospital Association (Grace Hospital). For purposes of taxation, the county auditor will, of course, determine whether a private charitable hospital is making "those who are unable to pay its first concern." Obviously no hospital can have objection to making such an annual report to the State Department of Health, which at all times will be available to county auditors who are now charged with the duty of putting taxable property upon the tax duplicate.

The proposed plan, if adopted and properly executed, will result in accurate information as to the cost of hospital and dispensary maintenance and operation. Such information can be placed at the disposal of the Industrial Commission and used by that department as the basis for determining its schedule of hospital fees and charges for hospital service rendered and paid for out of the state insurance fund. It would forever end the day of the arbitrary fee schedule as now prepared by the Industrial Commission and, furthermore, make it unnecessary for the Ohio hospitals to do "charity work" for the state.

The State Department of Health already has authority to license and inspect maternity boarding homes and lying-in hospitals (Sections 6259-6271 and 6227) as now defined but by another provision of the statutes (Section 1352); the Board of State Charities is also vested with authority to inspect these same institutions otherwise named. In spite of attempts to work out a joint plan of administration, great confusion has obtained. This dual responsibility and lack of system has made effective results impossible. Obviously the department which has authority to license maternity hospitals should also have the sole authority to inspect them.

RECOMMENDATION

The legislature should adopt a resolution directing the State Department of Health to study the present hospital and dispensary facilities of the state and to make recommendations for such legislative action as is necessary to bring about a closer working relation between so-called private hospitals and dispensaries and the state, and such further recommendations as are necessary for the development of existing hospital and dispensary facilities to meet the needs of the sick.

DIGEST OF DISCUSSION

The State Department of Health should be the chief adviser of the legislature in all matters pertaining to hospitals and dispensaries. Under the terms of this resolution, it should obtain adequate information as to the hospital and dispensary needs of the sick and make recommendations which should be helpful to the assembly in its

consideration of legislative proposals dealing with such matters.

RECOMMENDATIONS OF THE OHIO HEALTH AND OLD AGE INSURANCE COMMISSION

The report of this commission, with its legislative proposals in bill form, will have been filed with the Governor of Ohio before the February number of THE MODERN HOSPITAL reaches the members of the American Hospital Association. A digest of recommendations pertaining to sickness prevention and health insurance is given below. They indicate that the report will be far-reaching in scope and in importance. Recommendations for old age pensions are not included because of limited space.

These recommendations should be of interest to all hospital people and of especial interest to those in Connecticut, Illinois, Pennsylvania, California, Wisconsin, and New Jersey, as these states have similar commissions and some of them are about to make reports. Members of the association will be kept informed, so far as possible, through this bulletin of the activities of the different commissions. With the convening of the state legislatures, hospital trustees and officials should be on their watch for all such legislative proposals. It should be remembered that *hospital responsibilities will be revolutionized if health insurance proposals become effective.*

RECOMMENDATIONS ON SICKNESS PREVENTION

I. Adequate health supervision of all elementary and high schools, including annual medical examinations of all children by physicians and supervision by public health nurses should be provided. The cost should be borne by the state, the cities, and counties in some equitable proportion.

II. Provision should be made for adequate public health nursing service in each city and county, including pre-natal and infant care. The cost should be borne by the state, the cities, and counties in an equitable proportion. The State Department of Health should fix the qualifications of public health nurses and have general supervision over the work.

III. Physical education should be required in all schools for all children, and practical teaching of health and hygiene should be required in the elementary schools.

IV. The teaching of home economics, including home nursing, should be developed as rapidly as possible under the system of vocational education provided by the state in cooperation with the Federal government through the Smith-Hughes Act. Home demonstration work should be widely extended under the Smith-Lever Act, and legislation to authorize such work on the same basis as farm demonstration should be immediately enacted.

V. All children's homes should provide for adequate health care and supervision, and the board of state charities and the state department of health should have wider power to enforce standards of health care of children in institutions.

VI. The local public health system should be revised. The township, village, and small city health boards and offices should be abolished, and in their place should be a county health commissioner, subject to the supervision of the State Department of Health, who should have control of all public health work in the county. Cities of more than 50,000 population may, if they so elect, be separate health units as now constituted, subject to the same state supervision as the county health unit.

VII. A state program should be adopted to cooperate with the federal public health service for the suppression of venereal diseases in the state.

VIII. A law should be passed prohibiting industrial work by women for at least six weeks following childbirth.

IX. Every child under 18 should be physically examined before going to work and a certificate be obtained from the county health commissioner or the city health authorities that the work to be engaged in will not be physically injurious to him. The State Department of Health shall formulate rules and regulations for such examinations.

X. The program adopted for the study and care of the feeble-minded by the Ohio Board of Administration under recent legislation should be pushed through as rapidly as possible.

XI. Provision should be made without delay for the care of tuberculous patients in county and state institutions. These institutions should become agencies for treating incipient cases and not merely for the treatment of incurables. The counties should be required to furnish sanatorium facilities.

XII. In accordance with the report of a special committee, made to the Governor, on hospital legislation, there should be created a bureau of hospitals in the State Department of Health to survey the hospital facilities of the state, classify hospitals and dispensaries, and require reports on uniform blanks.

RECOMMENDATIONS ON HEALTH INSURANCE

I. The principle of health insurance is approved as a means of distributing the cost of sickness.

II. Health insurance should be required for all employees, to be paid for by employers and employees in equal proportion. The state should pay all costs of state administration as in the case of the Workmen's Compensation Act and all cost of supervision of insurance carriers.

III. The benefits to workers under health insurance should consist of (a) cash payment of a part of the wages of workers disabled by sickness; (b) complete medical care for the worker including hospital and home care and all surgical attendance and the cost of all medicines and appliances; (c) adequate provision for rehabilitation, both physical and vocational, in cooperation with existing public departments and institutions; (d) dental care; (e) medical care for the wives and dependents of the workers, if the same can be done constitutionally, and a burial benefit for the worker.

IV. (a) The exact form of organization of the medical service, including hospital and dental service, should be left largely to the State Health Insurance Commission which administers the act, to develop plans to meet conditions in different parts of the state. Minimum standards should, however, be established to insure that such service shall be adequate.

IV. (b) It should be clearly established that medical, hospital, and dental care shall be adequately compensated.

V. The insurance should be carried in establishment funds, mutually managed, and in public mutual associations. Companies or associations writing insurance for profit should not be permitted to be carriers of such insurance.

VI. The system should be administered by a state health insurance commission of four members, one of whom shall be the State Commissioner of Health. The state commission may fix such administrative districts as may be necessary and shall coordinate their work so far as possible with the local health authorities.

VII. There should be a reasonable waiting period not less than six days before cash benefits are paid. Medical benefits should be given during the entire time of disability. Benefit payments should be continued as long as disability lasts, but not exceeding five years.

Army Hospital Program

MODIFICATION SINCE THE ARMISTICE AND ADOPTION OF PLANS FOR DEMOBILIZATION

The Secretary of War has prepared the following communication relative to the hospitalization program of the Army for publication as a part af the bulletin of the association in THE MODERN HOSPITAL. It briefly states the modifications of the program since the signing of the armistice and adoption of plans for the demobilization of the Army in the United States. This, together with the list of hospitals for the reception of overseas cases with their bed capacity and list of hospitals classified for the distribution of sick and wounded from overseas as well as for the sick and disabled in this country, will be of great interest to hospital people in general and of especial interest to the members of the American Hospital Association.

My dear Mr. Wright:

I am very glad to supply the information which you request. The hospitalization program of the Army naturally underwent considerable modification, following the signing of the armistice and the adoption of plans for the demobilization of the Army in the United States.

At once all of the base hospitals in the National Army and National Guard camps thus became available for use in the care of sick and wounded from overseas, and at that time placed at our disposal some thirty thousand vacant beds. Calculations were made by the Surgeon-General, and it was at once decided to abandon as many projects as possible which called for Government expenditures in the way of leasing buildings and for alterations and construction on property other than that owned by the Government. In fact, an effort was made to curtail new construction from that time on, to the fullest possible extent.

While the program which had been approved of establishing hospitals in the various draft districts in sufficient numbers to make possible the return of sick and wounded to points as near their homes as possible, has been interfered with by the changed plans, nevertheless, it was not felt that we would be justified in continuing to expend millions of dollars for the development of new hospital projects simply for the purpose of returning men nearer to their homes, when it is believed that ample hospital facilities are already available, or are soon to be available, in military hospitals already functioning with complete staffs and equipment. I believe the justice of this attitude will be apparent to all.

The Surgeon-General was advised by cable early in December that he might expect about ten thousand sick and wounded per month, and that a total of approximately sixty thousand would require at least two months' treatment on arrival in the United States. It is interesting to note that during the month of December nearly twenty-five thousand sick and wounded were returned from overseas, and a cable received within the last few days informs the War Department that all casualties will have been evacuated to the United States at the end of three months.

With these facts before us, it is believed that we have ample hospital facilities available, for on the twenty-eighth of December, the Medical Department had one hundred and ten thousand beds in military hospitals of the United States, forty-nine thousand of which were vacant. In addition, ten thousand or fifteen thousand more beds will be available very shortly.

From what I have already said as to the policy of the War Department, I think a correct idea may be obtained as to the facilities available and the system under which it is intended to make use of those facilities. The policy of the War Department, so far as relates to the treatment of sick and wounded men, may be briefly summarized by the statement that it is the policy to do everything possible to retain sick and wounded soldiers in military hospitals until the maximum of improvement has been obtained, considering the nature of the disability.

I hope this will give you the information which you desire.

Very sincerely yours,

NEWTON D. BAKER,
Secretary of War.

NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.

Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast Avenue, Oak Park, Illinois.

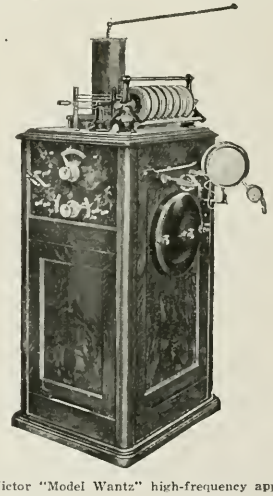
New High Frequency Apparatus

The manufacturers of this particular apparatus have informed us that they felt the need of placing at the disposal of the operator a single apparatus so constructed that it would deliver without exception every single high frequency modality and at the same time not break down under hard service.

These two features (the wide range of modalities and the ruggedness of construction) have a special appeal to hospitals and sanatoriums, particularly where many patients are treated daily.

This apparatus is so designed that all of the "Tesla" as well as "d'Arsonval" modalities are available, which literally makes this machine a duplex apparatus, in one housing or cabinet.

A good idea of the flexibility of this apparatus may be had by glancing over the various modalities available.



New Victor "Model Wantz" high-frequency apparatus.

They are as follows: (1) Auto-Condensation (Tesla); (2) Auto-Condensation (d'Arsonval); (3) Auto-Conduction (Tesla); (4) Auto-Conduction (d'Arsonval); (5) Diathermy (d'Arsonval); (6) Diathermy (Tesla); (7) Fulguration (Hot or Caustic Spark); (8) Fulguration (Cold or Dehydrating Spark); (9) Effluеve (Similar to a Static Spray); (10) Head Breeze (Similar to the Static Spray); (11) Inhalation (for Ozone Inhalation); (12) Ultra Violet Rays; (13) Vacuum Electrodes.

The apparatus is manufactured by the Victor Electric Corporation and is known as the "Model Wantz." It is designed to be operated from alternating current, but for institutions where only direct current is available, a rotary converter (mounted within the cabinet) can be supplied for converting the direct to alternating current.

Incubating Room

The importance of the factor of construction which has to do with insulation should be carefully considered as imperfect insulation is a serious disturbing element in maintaining a constant temperature in an incubating room.

Alternating layers of three-quarters of an inch wood flooring and one inch cork with intervening layers of building paper are nicely suited for this purpose, the number of layers of wood and cork depending upon the size of the room; for instance, a room four feet wide, with a depth of six feet and a height of seven feet, requires two thicknesses of one inch cork, with intervening layers of building paper. These layers are nailed together with the corners overlapping to make them perfectly air-tight.

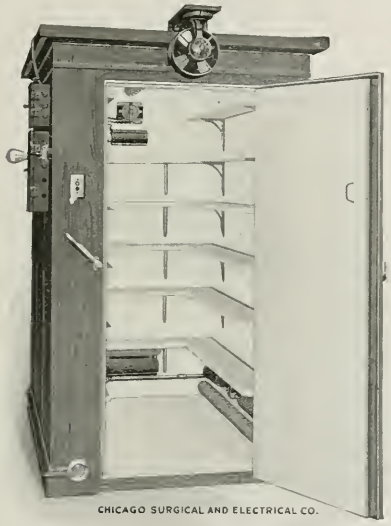


Fig. 1. Incubating room.

The door is made of the same material and the door casing covered with felt which make it air-tight and dust-proof.

The entire inside of the room, i. e., the walls, ceiling, and door, is covered with a layer of transite (a combination of Portland cement and asbestos) and painted to prevent retention of odors and absorption of moisture. The heating medium consists of electric stoves arranged around the base of the room about three feet apart; the number depends upon the size of the room.

These heating stoves are controlled by a solenoid; this in turn is controlled by an electro-thermostat which is actuated by a small electric stove mounted directly underneath it. All wiring is enclosed in steel conduits to comply with the Board of Underwriters' Regulations. The diagram showing the plan of wiring conveys a general idea of the plan followed. The arrangement shown would apply to a room with inside dimensions of height, seven feet; width, four feet, and depth, six feet.

Proper ventilation is furnished by means of a ventilating fan with ventilating pipes. These pipes are installed directly underneath the heating stoves on each side of the room, while another pipe extends along the ceiling and terminates in a hood containing the fan. The fan is directly connected with the thermostat and controlled by same in such a manner that when the electric current passes through the heating stoves the fan is started and

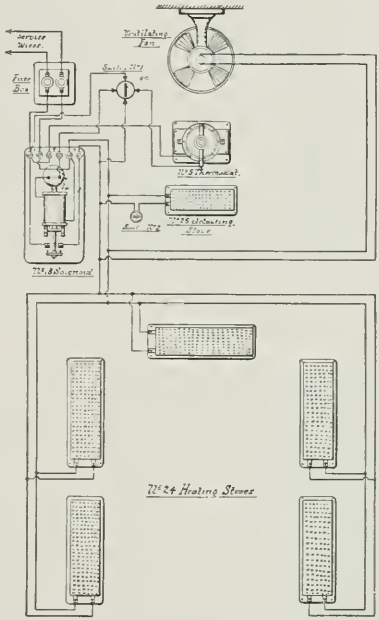


Fig. 2. Diagram of construction of incubating room.

continues to run as long as the current is passing through the stoves. Thus a perfect circulation of air is obtained, insuring a uniform temperature throughout the room.

The shelves are installed so that an opening is left between the walls and the shelves to allow circulation of air.

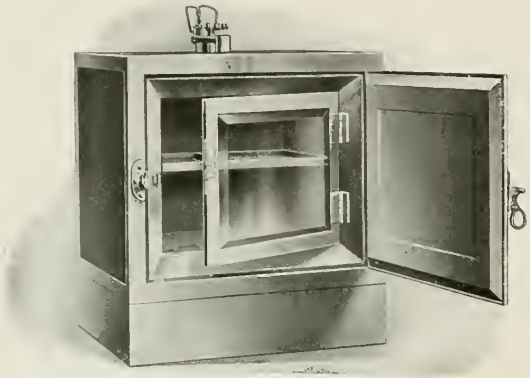
Bacteriological Incubator, Electrically Heated

The incubator shown is of a very substantial construction and of a size suitable for use in the laboratory of a small hospital.

A number of such incubators have been furnished by the Wilmot Castle Company, the manufacturers, to the United States Navy Department, who furnished the original specifications for its construction.

In place of the water jacket that surrounds the incubator chamber in the standard design, there is a thick wall of insulation material which effectively prevents the radiation of heat. The electric heaters are placed in a separate base below the chamber and are located so that heat goes up through air passages in the back and the two side walls. Both the top and bottom of the chamber are perforated, and the circulation of air gives a more uniform and constant temperature than the older methods of heating with electric units in the chamber itself. It also permits the use of the full capacity of the chamber.

The inner walls and frame are made of heavy copper and there are two doors, the inner one of which is of glass to allow inspection of the chamber. Dimensions are 9½ by 12 by 9½ feet.



Castle electrically heated bacteriological incubator.

A New Mechanical Rectifier

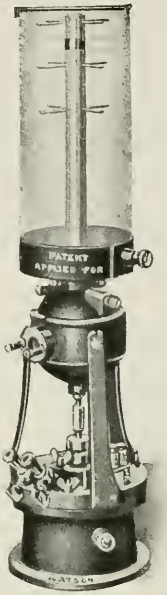
Many devices have been placed on the market from time to time for the suppression of inverse current. The new apparatus shown here is a modification of a well-known type of rectifier, the outstanding features of the design being a considerable reduction in dimensions and a proportionately increased portability.

Rectification has previously been obtained by using one revolving member made up of two or four revolving points, according to the number of contacts fitted to the interrupter, and this revolving portion has been generally in the neighborhood of ten to twelve inches in diameter, in order to give the necessary separation between the inverse and direct impulses. In modern mercury interrupters, there are usually four contacts, and consequently it was necessary to arrange two metal rods at right angles to one another, thus giving four revolving points. With a contrivance made on these lines, having a diameter of at least ten inches, it required a fair margin of power for its revolution, and, in order to safeguard the operator from accidentally coming in touch with the revolving points, it was found necessary to enclose the device in some protective cover. This again added to the size of the instrument, so that, if anything, it was larger than the interrupter itself.

No new principle is involved in the new rectifier. Instead of one revolving portion, however, there are three, mounted vertically one above the other, and each one is a third of the diameter of the original pattern described above. The apparatus is, therefore, very much smaller, and is arranged within an insulating tube of about four inches diameter. This tube also serves to support the collecting segments, completely houses the revolving portion, and prevents illumination of the x-ray room by sparking between the collectors and revolving arms.

The three revolving portions are connected in series, so that the inverse current, in its endeavors to pass through the tube, has to jump six gaps instead of two; but each gap is, of course, proportionately smaller, so that electrically there is no difference in the result effected between the two designs.

Owing to its compactness and light weight, the apparatus has been found to be advantageous for use with the Field Service of the English Army Medical Department.



Mechanical rectifier.

Patient's Bed Rest

A new device to insure greater comfort to patients confined to their beds, either at home or in the hospitals, especially during convalescence, is being offered to the profession and the hospitals by the manufacturers, Lee, Scovill & Co., of Boston, and the surgical supply houses.

The apparatus consists of a white enameled or mahogany finished board 10 by 24 inches, with heavy wire rests on each side and a pair of straps. The straps are attached to the head end posts of the bed when the outfit is used as a foot rest to prevent the patient from slipping down the pillows. In cases in which the foot end of the bed requires elevation, the straps are attached to the post at the foot end and the board then acts as a head rest. When the patient desires a change of position, it is not necessary for him to call the nurse or attendant. All he has to do is to grasp the ends of the straps and either pull up or push down the board and refasten the buckles.

It has also been demonstrated that the device is of great assistance in obstetrical work, and a special extra strong folding device is now manufactured for this purpose.

Lee, Scovill patient's bed rest.

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

Vol. XII *March, 1919* No. 3

THE BENJAMIN STICKNEY CABLE MEMORIAL HOSPITAL, IPSWICH, MASS.

A Small But Complete Hospital Built as a Memorial, in Which the Memorial Feature Does Not Crowd Out the Essential Hospital Requirements—Unique Combination of Natural and Artificial Lighting in Operating Room

By EDWARD F. STEVENS, Architect, Boston

THE expression of sincere regard for the memory of a friend can be shown no more fittingly than by the creation of a home or hospital or by a fund for the relief and comfort of the unfortunate.

At the moment of the occurrence of the fatal accident which deprived the world of Mr. Benjamin Stickney Cable and saddened the lives of his relatives and friends, the hospital committee at Ipswich, Mass., were endeavoring to secure pledges and money for the erection of a modest hospital to meet the demands of this small but growing manufacturing town. The fatal accident changed the entire program of this hospital, for a life-long friend and classmate of Mr. Cable came forward and asked the privilege of erecting and equipping the hospital and making it a fitting memorial to his friend.

A suitable site was selected and a careful study begun to make this hospital, first, an ideal small hospital and, second, a fitting and dignified memorial. The site selected was an open lot of about ten acres, with gentle slope toward the north and

Fig. 1. Front view of Benjamin Stickney Cable Memorial Hospital, showing ambulance entrance and method of architectural treatment of operating window.

Fig. 2. South front, with airing balconies and patients' terrace.

south from the center of the lot. To build approaches, plant trees, and create gardens was the work of the landscape architect. The outlook to the south, over the rolling farming country of Ipswich, affords an ever-interesting and changing view for the patients, as every window and every airing balcony commands this view, which is enhanced by a patients' court about 200 feet square, surrounded by a low brick wall, with a small summer house at the exterior angles of the court. Flower beds and shrubs add further to the pleasure of the patients.

In the plan adopted, the patients are located generally on the south side of the building. The airing balconies, which are commonly placed at the south, were in this case made as cloisters extending to the east and west, with full opening to the south. Openings to all private rooms allow the beds to be wheeled into the open air.

Notwithstanding the fact that the hospital is small (only twenty beds), every department of the larger hospital is provided. On the ground floor, kitchen and dining-room accommodations are secured, as well as a complete x-ray, laboratory, and dental clinic. The autopsy and pharmacy, electric automatic elevator, and vacuum cleaner are also on this floor.

On the first floor, in addition to the wards above noted, a well-equipped operating room has proven interesting, with a gray "sand" tile for the floor, dark buff Grueby tile for the lower six feet of the walls, surmounted by a darker brown border, and upper walls and ceiling of a light buff. The lighting is not only all that is required but is of such a tone as to prevent eye-strain. The usual sky-

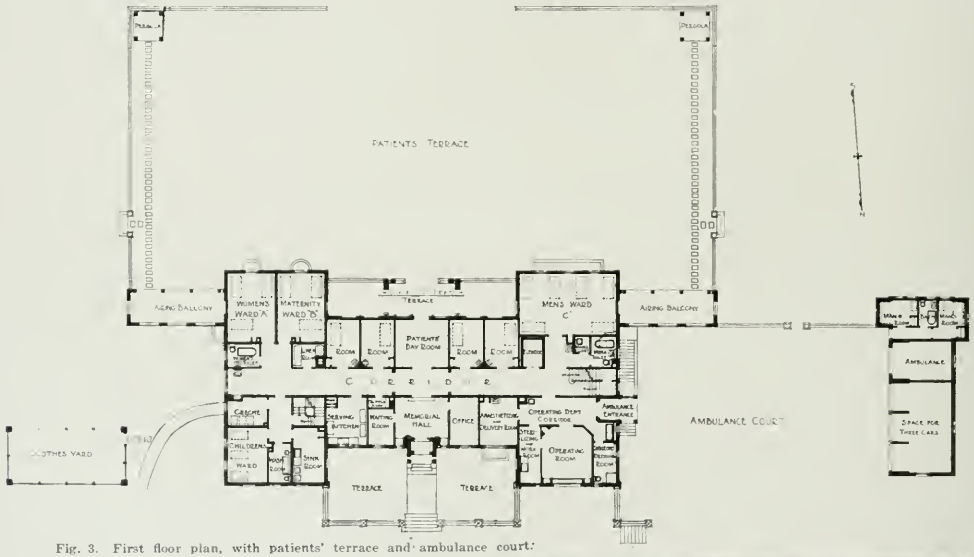
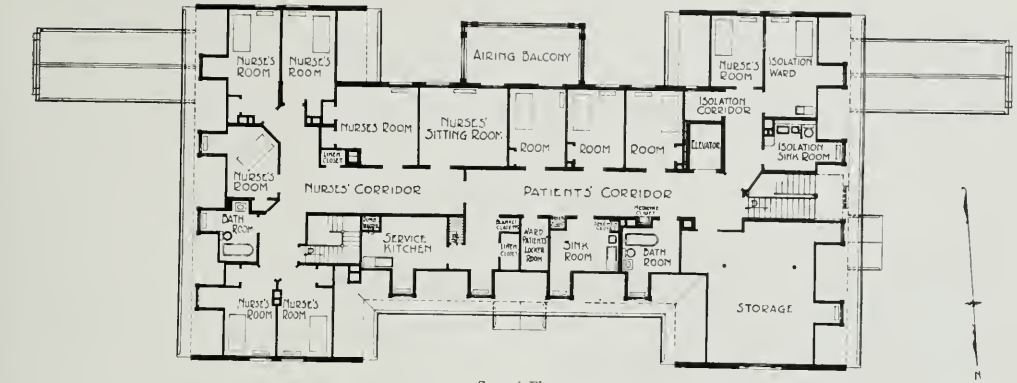
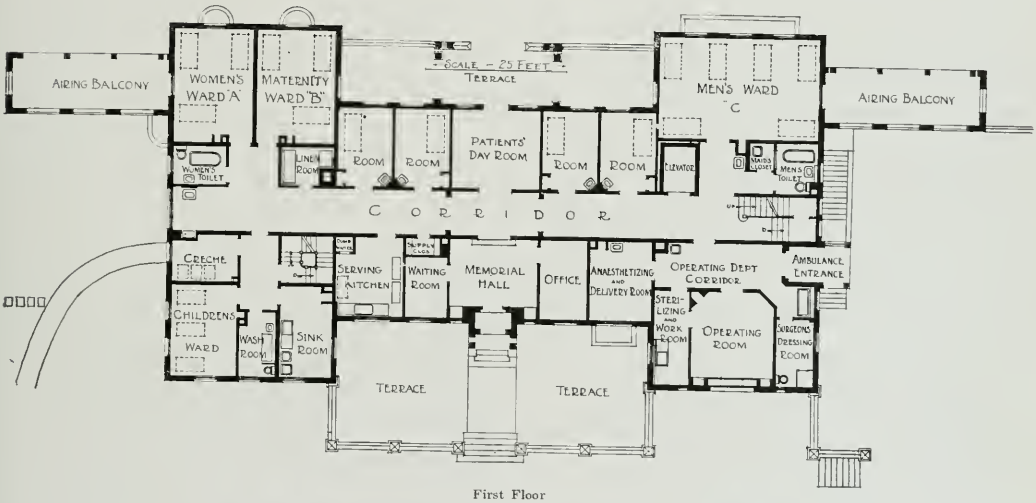


Fig. 3. First floor plan, with patients' terrace and ambulance court.

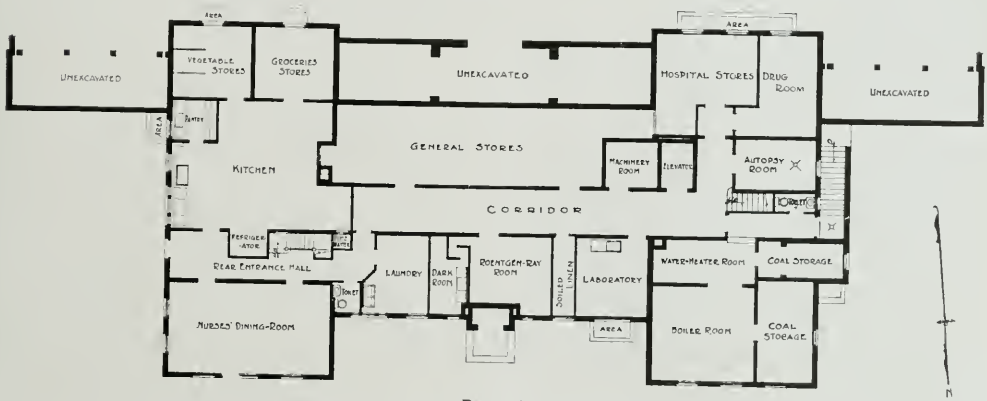
Fig. 4. Entrance to hospital, showing superintendent's office and memorial tablet.



Second Floor



First Floor



Basement

Fig. 5. Basement, first and second floor plans of the Benjamin Stickney Cable Memorial Hospital.

Fig. 6. Operating room, showing method of natural and artificial lighting. Note the dark tile walls, built-in cabinets, and double window with heating units between glass.

light for operating rooms is eliminated and the wall light carried above the ceiling line, giving practically the same lighting as if carried on the ceiling, but avoiding the ugly skylight features on the exterior.

The children's and maternity departments are complete.

In the service court, the garage building affords both storage for the ambulances and living quarters for the orderlies.

The elevator is run by electricity, and the cooking, sterilizing, and vacuum cleaning are also done by the same means.

The exterior of the building is in the Georgian style of architecture, with red brick and white marble trim. The walls around the forecourt and patients' court are of the same material.

While the interior details are simple, as befits any building for the care of the very ill, nevertheless the entrance or memorial hall has a slight claim to architectural detail. A bronze memorial tablet, mentioning the name of the man in whose memory the building was erected, occupies a prominent space.

The furnishings and coloring of the interior were carefully selected, not only for utility but for a therapeutic effect on the patient as well.

WALTER REED MEN LEARN TO FARM

Thirty Men From This Hospital Will Train at Lawrenceville, N. J.—Complete Farming Equipment, Including Live Stock, Has Been Prepared for Them—Farming to Be Adapted to Needs of the Northeast

"Thirty Sign Up for Farm Life," is the heading of a column in the *Come-Back*, a regular newspaper, published by a bunch of "regular fellows" at the Walter Reed General Hospital. "Walter Reed," says the paper, "is as full of morale as a poison ivy vine is full of itch. . . . Everybody at the post is either working or getting ready to work—and at some job that will mean something when he gets back into those old 'civvies.'"

The plan for training in farming outlined for the men will not hold them in service but will hasten their release. The farm is to be conducted at Lawrenceville, N. J., and will be operated jointly by the army, the Federal Board for Vocational Education, John D. Willbank of New York, and the Surgeon-General's office. It is to be adapted particularly to the needs of men who wish to farm in the northeast.

At present there are on the farm 35 Holstein cows, 11 heifers, 15 breed sows, 8 horses, and several flocks of poultry. The farm is of 535 acres, and the government is building two barracks for the men. There is a full line of machinery, including three tractors and two autos; a sewage system; a Deloc lighting system; and water works. Water is drawn from a 200-foot well. The present plan is to allot plots of ground to each man for truck and garden work. Two hundred acres will be used for general farming, 100 acres for truck farming, and 100 for pasture and woodland.

A chance for academic studies will be given the men in the next few months. Among the farm courses will be studies in bees, seeds, soils, fertilizers, house and home management, and farm management. In the spring the regular farming operations will begin in earnest.

Two medical officers will be at hand to attend the men, and men suffering from arm or leg ailments are not encouraged to sign up for this work.

These men find healthful and profitable work in the truck gardens of the Letterman General Hospital, San Francisco.

Normal Men Though Blind

Normal men doing without their sight—that is Sir Arthur Pearson's ideal for his blind soldiers at St. Dunstan's, an ideal which most of them rapidly achieve.

Crocker, who was making the typewriter click one day as Sir Arthur passed, had been a miner before the war and had been a pupil at St. Dunstan's for only six weeks.

"Who is there?" asked Sir Arthur.

"Crocker, sir—writing a letter to my mother."

"And how are you getting on?"

"Fine, sir!"

"Did you know anything about a typewriter before the war, Crocker?"

"No, sir—I'd never seen one!"

Crocker's life will not be wrecked by blindness—nor the lives of the six hundred other men whom St. Dunstan's has already started in the world.

A HOSPITAL LIBRARY AND SOME OF ITS BY-PRODUCTS

A Unique Experiment in the Establishment of a Hospital Library Which Later More Than Justified Its Existence—Inexpensive Yet Important Addition in Its Personal and Human Appeal—How Volunteer Help Aided Barnes Hospital in Solution of Problem

By ELIZABETH GREEN, Librarian Barnes Hospital, St. Louis

MY experience in libraries is confined to the Barnes Hospital library, which came into existence three years ago, shortly after the opening of the Barnes Hospital. Our location overlooking Forest Park, though ideal for fresh air and charming scenery, was rather inaccessible to libraries; so a very real need soon made itself felt and stimulated us to start a library of our own.

Fig. 1.—Bookshelves in the record department house the books which are issued to patients, doctors, nurses, and employees.

The first problem to settle was where to put the library and who should supervise it, for it was out of the question either to give it special space or to put a special person in charge of it. The record department had shelf space which it could spare, and its hours made it possible to keep the library open all day. In addition, the department force felt that they could handle the issuing of books along with the record work, and these decisions determined both the possibility of having a library and its location. The second problem was to secure books, and here the St. Louis Public Library, through its traveling library department, came to our rescue by giving us a collection of seventy-five volumes with which to begin. Presently the Washington University Training School, the nursing department of the Barnes Hospital, turned over such books as they had, to be issued along with the books from the traveling library. This increased our collection to about one hundred twenty-five books.

Word spread through the hospital that we had a library and that anyone who wanted to read could get a book by going to the record room. An immediate response followed, and in our first year we issued books to private patients, ward patients, doctors, nurses, and in fact to almost every type of employee in the hospital. This, however, was only the beginning. Friends outside of the hospital, hearing of the venture, let others know of our need, and many books were sent us, until now our library is limited by our shelf space and numbers some twelve hundred volumes. What might seem a hit-or-miss way of gathering a library has proved to be a very nice collection of books. We have some of the classics, many novels, books of travel, biography, poetry, religion, history, and essays, works in foreign languages, and technical and juvenile books, all of which are used by our reading public. In accepting gifts of books, we reserve the right to turn over any book that is not useful to us to someone or some library where it will be of use.

When our books wear out we give them to the traveling library, which, as part of the St. Louis Public Library, has them rebound in its bindery and reissues them to the Barnes Hospital Library. This keeps our library in good repair at no expense to the hospital, and lengthens the life of the books we want most. Unless some such arrangement could be made, we should be deprived of the volumes most desired.

The supplies needed are few. Fifteen hundred cheap cards, four by five inches, and library paste,

Fig 2.—Book day in the ward sitting room has often an important psychological effect on patients.

are about all that we have used. Book pockets are made from the pasteboard backs of blocks of paper, and the making and pasting of them in new books is done by volunteer workers.

Volunteer workers come once a week to issue books to the wards. Each worker selects a number of books and carries them with her to the ward chosen, after which, with the approval of the head nurse, she approaches the patients with the question, "How would you like to read a book?" It is interesting to watch a new patient the first time he is approached by a volunteer. Usually his face evinces a look of distrust, and almost always he asks the question, "How much does it cost?" When he finds that the book can be had for nothing, the look of distrust gives way to one of real pleasure, and, even if the "specs" that make reading possible have been left at home, he is glad to have the chance of talking for a moment with the volunteer. This giving out of books brings a very human element into the hospital, for here are non-professional people doing something for the hospital and patients other than ministering to their bodily ills, and the patient feels that there is a very personal, everyday kind of interest in his happiness and contentment, as well as in his physical condition, which contributes much to the spirit of the place. The patient who is in the hospital a long time looks forward to "book day," and if a volunteer is late in arriving or if the weather is bad, she often hears, "We thought you wouldn't come today, and I have nothing to read; I have finished my book." Some of the wives of our visiting physicians have been among our volunteer workers, and to them and our other friends who have given so faithfully and unsparingly of their time, cheer, and energy, we owe a debt of gratitude.

Another aspect of the work of a library in a hospital, and one of especial interest, is the relation which a carefully selected book may have to the treatment of a patient. Take your exophthalmic goiter cases. If you can manage to interest without unduly exciting, you contribute to a frame of mind that undoubtedly helps. In such a case, reading might be regarded, without drawing too long a bow, as a therapeutic measure. Or, take your orthopedic patient on a Bradford frame, who for weeks has to lie in bed in such a position that reading small print or holding a heavy book is a bad thing. Give such a patient a small, light book with big type, and you bestow a real pleasure without much risk of eye strain, or much fatigue from holding a book.

It is important, in the selection of your library, to remember that books with small type and glazed paper are poor things to give a patient in bed, where the position at best is not ideal for reading. There are editions of big-type books on the market, and it only needs the stimulation of demand to give us a greater choice of literature in this desirable edition, which is grateful equally to those with tired eyes and to bedridden persons. Show your neurologist that you have an interest in helping him find books for the patients whom he desires to have read, and see how glad he is to have someone supply his patients with the type of books he thinks may help them. It is fascinating work, and the calls are not so many that the time can not be spared for it.

The library at the Barnes, instead of proving an undesirable addition to the record room, has brought to it, with its element of human relation, something that has been a relief rather than a burden. It serves as a refreshing contrast to the close application of record work, and often the library provides an amusing incident that furnishes relief to the more serious work of indexing histories.

Our scheme for running the library is to issue books for two weeks, and, in order to insure getting them back promptly, we have instituted a system of fines. Patients are exempt from fines, however, for, being dependent on others, they can not be held responsible for the return of books. The fines collected are sufficient to pay for paste and cards, leaving a surplus, which, if applied to time given by the record department, would cover all costs.

There is much to say in favor of the endowed library. What a pleasure to convalescent patients to have a cheerful room with tables, comfortable chairs, and writing materials, where they can get away from the somewhat bleak and cheerless spotlessness that is necessary in most parts of a hospital and where they can forget for a time the "hospital atmosphere"! What a field for original work to a librarian with a large social outlook! Just the same, a library without costs is a possibility for every hospital, and such a library might later become endowed. But, even if the library runs along without much time spent on it by the hospital employees in charge, it can be made a real joy and do a lot of good. I think we can safely say that the Barnes Hospital Library has been self-sustaining always. The issue the first year was 2332 books, the second year, 4047, and the third year, 4786, showing a material increase each year. We feel that the library has become a real part of our hospital life, and one that is of intrinsic value both from its social and therapeutic aspects.

THE BRAVE BLINDED SOLDIERS OF ST. DUNSTAN'S HOSTEL

Theirs is a Form of Heroism Which Needs to Be Renewed Every Day—At St. Dunstan's They Learn to Play and Work and Regain Their Independence—Sympathy, Not Pity, Is What They Need—Their Lives Are an Inspiration to the World

By SIR ARTHUR PEARSON, Founder and Director of St. Dunstan's Hostel for Blinded Soldiers, London, England

THE heroism of these blinded soldiers no one can doubt. It was proved on the field of battle, but how much more since they have lost their sight and have now to fight the battle of life in darkness! It is a form of heroism which needs to be renewed every day—one might say, every moment of every day. The ambition of these men is to be once again normal citizens—like others in their capacity for happiness, like others in fruitful effort. And if they succeed in this ambition, if they surprise everyone by their courageous outlook and by what they are able to accomplish, it is not because it is easy to overcome their handicap, but because they are filled with the spirit which will not be conquered.

When they come from the hospital to St. Dunstan's they are like men who begin an existence which is new. They live and work in the night. They must learn again to walk—for those who walk in the night do not walk as those who walk in the day. They must learn again to read and write, and in the workshops they begin to make things, clumsily at first as a child—these men who will so soon become skilled craftsmen. They have to learn again to play as well as to work, and in moments of rest and quietness to be without the distraction of passing events or the delight of the natural beauties about them. Yet in their heroism they will not sit staring into the blackness, but exert themselves to see visions, by the use of memory and by the power of imagination creating scenes that are, as it were, cut off from them by a curtain. And if, when the blinded man walks on the sands, he sees the blueness of the waves, it is by an effort which is, at the bottom, heroic; if, when the touch of spring is in the air, he sees the tender foliage on the boughs of the trees, and the flowers on the wayside banks, it is because his courage will not permit him to be shut off from these simple enjoyments.

It is the magic of hope which makes this heroism possible on the part of the blinded men who come to St. Dunstan's. They are not allowed to know that period of despair which might result in a melancholy which would be almost unconquerable. They are visited directly they arrive at the hospital, and those who are themselves blind speak to them of hope. They learn what others, blinded like themselves, have done and are doing; they are told of men wounded in this same war who have already learned to walk with independence in the darkness, to read and write Braille, to use a typewriter, to master one or two trades, to become so proficient in these trades that they can earn more money than they were able to do as sighted men before the war, who have been set up in business for themselves, and who, looked after always by the organization of St. Dunstan's, are now living a home life made almost care-free by the liberal pension allowed by the government, by the provision made for their children, and by the amount of money which by their own skill they can earn.

To the blinded soldier still lying in his cot in the hospital ward come dreams that do not vanish at dawn; new horizons appear; he is already inspired to set out on a voyage of discovery through the night that lies before him, and from the moment that he arrives at St. Dunstan's he finds in the reality of the present an intense and absorbing interest.

Nothing in my experience is perhaps more extraordinary than this: A blinded Canadian soldier arrived one day from hospital at St. Dunstan's and, like all new arrivals, after his first interview with me, was taken over the building, through the class rooms and the workshops and the grounds. On his return I asked him whether he had been happily impressed. He answered, "Yes, sir, only I cannot believe that all these men are blind." This man, himself unable to see, had yet gained such an impression of the cheerfulness and the activity of the men he had encountered wandering in the garden or at their daily tasks that it seemed to him impossible that they were, as he was, blind.

It is a claim I am justified in making that St. Dunstan's is one of the most cheerful places in the world. To the public I say: "Do not pity these blinded men; give them all the sympathy in the world, give them all the help you possibly can, encourage them all in their growing spirit of independence; when you walk with them guide them as little as possible, when you talk with them do not talk to them as men cut off from all the beauty of the world and of the passing interests of the day. If they have set themselves to forget what they have suffered and what they

are suffering, is it for you to remind them? Do not pity the blinded soldiers, but understand them. Let your consolation take the form of encouragement and sympathy; be patient. Of all the handicaps that a man may have to face in his own person, blindness is the most appalling, and, though these men rise superior to it, it does not change the fact that they are blind, without sight of sun, or moon, or star throughout the year, or man, or woman. They can never see again the homes to which they have returned from the trenches; they can never see again one ray of color, or one sign of movement. Yes, it is necessary to be patient with such men in their moods. It is necessary also to remember that they are wonderful; by their bearing, which is so resolute, and by their courage which is so unflagging, they are creating a new interest among the public, in the whole world of the blind."

There is inspiration for everyone in the deeds of these men whom it is my special privilege to look after, both at St. Duntan's and in the home life to which they will return when they have learned to be blind.

ATTITUDE OF THE MIDDLE AGES TOWARD THE CRIPPLED AND DISABLED

Antiquity Reveals Physically Handicapped as Helpless Beggars, Provided for Through Casual Almsgiving—Middle Ages Exploits Deformity as Material for Comedy—Heartless Ridicule, Inhuman Brutality, and Ignorant Superstition Characterize Attitude Toward Cripple to End of Eighteenth Century—The Dawn of a New Era

By DOUGLAS C. McMURTRIE, Director Red Cross Institute for Crippled and Disabled Men, President Federation of Associations for Cripples, New York City

HISTORICAL evidence demonstrates clearly that the crippled and disabled man has always been discriminated against by the community. In antiquity the physically handicapped were treated with a special cruelty, and even with the advent of the Middle Ages there was little improvement in the direction of more constructive treatment.

In 590 A. D., St. Gregory reformed the administration of the church and of charity in the city of Rome in an elaborate manner, one of his provisions being that the sick and the infirm were to be superintended by persons appointed to inspect every street. But the recognized mode of providing for the disabled remained in general what it had been in earlier times — almsgiving in response to begging. In Constantinople pauperism became so extreme during the fourth century that the Emperor Constantine decreed that all able-bodied beggars were to be condemned to slavery; the inference that beggary was to be reserved for the disabled is quite apparent. In Queen Elizabeth's day, more than a thousand years later, we meet the phrase "sturdy beggars" with a similar implication. Between these dates we have Charlemagne's order that no one was to presume to give relief to able-bodied beggars unless they were set to work.

In all justice to the Middle Ages it must be pointed out, however, that casual almsgiving was not the sole relief provided. The church was actively engaged in relief work, at first on a parochial, then on an institutional, basis. Side by side with the centers established in the monasteries, there grew up a system of endowed charities, also under church rule, for the care of the "poor" and the "sick" and others in need of aid. It is fair to assume that the crippled and the deformed were included in these categories, al-

Fig. 1 A Procession of Cripples, by Jerome Bosch, a fifteen-century painter who showed a special predilection for cripples as subjects.

though specific mention of them rarely occurs. Thus, along with other hospitals established at Canterbury in England during the twelfth century, there was one for "poor, infirm, lame, and blind old men and women." That all these institutions provided relief of the most primitive kind only need not be emphasized.

Before pursuing further the gradual evolution of the relief afforded the crippled and the deformed, it will pay to consider the use which ancient and medieval society made of these unfortunates.

As it developed in luxury and culture, antiquity found a characteristic employment for some types of the deformed, especially for the dwarfed and the grotesquely shaped. There are extant ancient Greek representations of comic figures of this sort—forerunners, possibly, of the medieval court fool. Attic comedy made constant use of actors padded to simulate various types of deformity. The tradition that has come down to us with regard to Æsop presents the author of the fables as born to slavery and deformity; and, although modern historians seem to be doubtful as to whether Æsop ever existed or not, it is significant that tradition has created such a personality and that the oldest writer to mention his person speaks of his appearance and his voice as contributing as much as his stories to the amusement of his company.

Fig. 2.—The Disabled (Les Estropiés), by the sixteenth century Flemish artist, Jan Breughel.

But this comic exploitation of deformity, brutal as it must seem to us, is the brighter side of the picture. Seneca has left an appalling record of how some Roman masters exploited deformed slave children as beggars. If, as they grew older, their deformities were not conspicuous enough to excite compassion, the poor creatures were intentionally crippled to an even greater extent; their arms were cut off and their shoulders twisted so that they became humpbacked. If the day's earnings were not sufficient, the master rebuked the wretches, saying: "You have brought in too little, bring hither the whip; you can weep and lament now. Had you appealed thus to the passerby, you could have had more alms and you could have given me more."

The Middle Ages, like antiquity, exploited the appeal that physical deformity makes to a primitive sense of the comic. The court fool or jester was to be found almost universally in the retinues of princes and often in the households of noblemen. The type which literature has seized upon and immortalized was characterized less by physical deformity than by a certain superficial quickness of wit and power of repartee; by far the greater number, however, consisted merely of creatures who, by reason of deformity of mind or body, were calculated to excite heartless laughter or ridicule. The institution was firmly entrenched for many years, despite many tendencies operating to improve the situation. Even a number of decrees passed by the Reichstag in the sixteenth century failed to obviate the practice. Not until the Enlightenment was the custom abolished.

Even after this time, the court fool was still in vogue in the Russian court, Peter the Great having so many jesters of this type that it was necessary to divide them into classes. When the Spaniards under Fernando Cortez accomplished the conquest of Mexico, court fools and deformed human creatures of all kinds were found at the court of Montezuma.

Seneca's picture of the inconceivable brutality of some Roman masters has its medieval pendant in the picture drawn by Sebastian Brant in his "Narrenschiff." This German satire was done into English by Alexander Barclay in 1509, under the title of "The Ship of Fools." The following is a slightly modernized quotation from Barclay's version:

> Some other beggars falsly for the nones
> Disfigure their children, God wot, unhappily,

Mangling their faces, and breking their bones
To stir the people to pity that passe by.
There stande they begging with tedious shout and cry,
Their own bodies turning to a strange fashion
To move such as passe to pity and compassion.

Heartless ridicule, inhuman exploitation, and, with it all, "pity and compassion!" Add to this the superstitions—the belief in "changelings," in the "evil eye," in satanic paternity, which the medieval mind generally advanced by way of "explaining" deformity—and the strange picture is complete.

STEPHAN FARFFLER,
Uhrmacher in Altdorff.
Auch inventor eines Wagens mit 3. Rädern darauf
er sich, weil er Lahm war, selbsten herum gefahren,
welcher in der Nürnbergischen Bibliothec
gezeiget wird.
Starb A. 1609. d. 24. Octobr.
im 57. ten Jahr Seines Alters.

Fig. 3.—Stephan Farffler, watchmaker in Altdorff, also inventor of a three-wheeled wagon, which, because of his lameness, he wheeled about by himself. This is a copy of an engraving in the Nuremberg Library. Farffler died in 1609 at the age of 57.

If space permitted, it would be instructive at this point to consider in detail the rôle the cripple has played in literature. Allusion has already been made to Thersites, who serves Homer not only as a foil to the heroic splendor of Achilles and Ulysses, but also as a maker of trouble and sower of discord. In the Siegfried saga, the dwarf Mime plays a similar part. And in Shakespeare's Richard III we have a classic presentation of the cripple as "villain." In the opening monologue of the play, Shakespeare gives us a glimpse of the psychology of the cripple as he conceived it:

But I, that am not shap'd for sportive tricks,
Nor made to court an amorous looking-glass;
I that am rudely stamp'd, and want love's majesty
To strut before an ambling wanton nymph;
I that am curtail'd of this fair proportion,
Cheated of feature by dissembling nature,
Deform'd, unfinished, sent before my time
Into this breathing world, scarce half made up,
And that so lamely and unfashionable
That dogs bark at me as I halt by them;
Why, I, in this weak piping time of peace,
Have no delight to pass away the time
Unless to see my shadow in the sun
And descant on mine own deformity,
And therefore, since I cannot prove a lover
To entertain these fair well-spoken days,
I am determined to prove a villain
And hate the idle pleasures of these days.
Plots have I laid, inductions dangerous,
By drunken prophecies, libels, and dreams,
To set my brother Clarence and the King
In deadly hate the one against the other;
And if King Edward be as true and just
As I am subtle, false, and dangerous,
This day, etc.

Shakespeare's learned and philosophic contemporary, Lord Bacon, in his "Essay on Deformity," strikes a similar note, holding that "deformed persons are commonly even with Nature; for as Nature hath done ill by them, so do they by Nature, being for the most part . . . void of natural affection."

Writing almost two centuries after Shakespeare, Schiller, in his earliest play, "The Robbers," presents an interesting parallel to Shakespeare's Richard III in the figure of Franz Moor.

I have potent reasons to be out with Nature [says he] and on my honor I shall press them all . . . Why did she burden me with this load of ugliness? Why me, of all people? . . . Verily, I believe she threw into a single heap all the despicable elements of mankind, and baked me therefrom. Death and devils! Who gave her the authority to dower others with this and that, and to withhold these things from me?

Later he cries out, pathetically enough, as if with a laugh of grim irony:

But is it just to damn a man because of his deformity? In the most wretched of cripples there may shine a great and lovable soul, like a ruby buried in mud.

In conformity with medieval tradition, Goethe in "Faust" provides Mephisto with a limp. Stevenson's genial cutthroats in "Treasure Island" are variously mutilated; and even one of our own

present-day novelists has a penchant for legless and one-eyed villains!

But, from the end of the eighteenth century down, literature has grown increasingly rich in imaginative works that are not obsessed with this idea of a relation between physical and moral deformity. From Quasimodo to Little Eyolf, from Tiny Tim to Richard Calmady, the cripple has been presented with a freshness of vision and a realistic insight that mark the dawn of a new era for this social castaway. Perhaps the change can not be more strikingly indicated than in the following translation from "an old manuscript" first published in 1806; in its lonesomeness, its resignation, its poignant imagery, the little poem is a most revealing bit of the true psychology of the cripple under adverse social conditions:

Dear hand of God!
Lighten my heart,
Help me to find
Fun in my smart.
Methinks the dear Lord
At toss-ball doth play,
The harder he strikes me,
The higher my way.

Or am I a sapling
A garden within,
God is the gard'ner
And bends me to Him,
He cuts me and prunes me
And bends every limb,
So I may grow upward
And nearer to Him.

Oh, let me proclaim it,
God cuts to the bone,
He chips me and hews me,
But I make no moan,
You marvel and wonder?
I think it His wish
To sculpture an angel
Out of my flesh.

The dawn of a new era! It is probably fair to say that the old era was summed up and the new era prepared for by a Spaniard named Vives who published a book early in the sixteenth century on the subject of the management of the poor, a book which was translated into several languages and widely read. Vives divided the poor into three classes: those in hospitals and poorhouses, public homeless beggars, and the poor at home. He proposed a census of the poor in each town and the collecting of data as to the causes of distress. Then he planned the establishment of a central organization of relief under the magistrates. Beggary was to be strictly prohibited, and work was to be provided for all. The non-settled poor who were able-bodied were to be returned to their native homes; the able-bodied settled poor who knew no craft were to be put on some public work, the undeserving being set to hand labor; for the others, work was to be found, or they were to be assisted to become self-supporting. Hospitals were to be classified to meet the needs of the sick, the blind, and the insane. Funds were to be obtained chiefly from private sources and from the church.

The Sorbonne approved this cheme; the city of Ypres put it into effect in 1524; and similar plans were adopted in Paris and elsewhere. Queen Elizabeth's Poor Relief Act of 1601 was largely based on it. It was an ambitious scheme for the administrative technique of the age; but, whatever its success, it had in it the seed of a rational approach to the problem of the poor in general, and of the disabled and the deformed in particular.

Influenced, it may well be, by this Spanish book, President de Pomponne de Bélièvre founded in France in 1657 an asylum in which the infirm could find suitable work. Despite several sporadic imitations of this project, which later became the Salpêtrière, the early measures did not in a strict sense mark the beginnings of care for cripples, but they operated to the ultimate advantage of those who, by reason of their infirmity, were cast upon the pity of their fellowmen. The actuating motive of provision in many cases, however, was utilitarian in character. One object—an object avowed by Vives, for instance—was that all cripples might be so confined that they should not annoy the community by their deformed appearance, and the streets and highways be rid of beggars.

Fig. 4.—The Cripple, by J. Callot, a French artist who took cripples and beggars for his subjects.

Some of the many monasteries which had not been utilized since the time of the Reformation

were thrown open and converted into orphan asylums, madhouses, or penitentiaries. In the establishment of the various institutions, the cripple was frequently considered. For instance, those handicapped by deformity were provided for at a hospital for wretched and pauper invalids established at Pforgheim in 1722 by Count Luitgard of Baden. This was later transformed by Count Charles Frederic of Baden into an orphan asylum, making especial provision, however, for young and old cripples. According to the official ordinance creating this institution, the third class of inmates was to be composed of "those who have such physical defects that they are an especial abomination and disgust to other men whenever they come into their sight." The cripple department was, however, abolished in 1808, probably because the quarters were needed for the insane.

Such provision for cripples, however, gave them asylum only and did nothing to better their condition. The rise of the science of orthopedics was responsible for the ensuing improvement. The theories of the various orthopedists were best put into practice in an institution, and a large number of these were founded in the first decades of the nineteenth century, as, for example, those located at Paris, London, Leipsic, Lübeck, Berlin, Vienna, and Stockholm.

The first institution in the world with an all-around program for ameliorating the lot of the cripple was established in Munich in 1832, but this was devoted particularly to the care of crippled children. A long period followed before the creation of the second establishment of the same sort, which came into being in Copenhagen in 1872. From this time on, the number of schools for crippled children rapidly increased. But for the care of the disabled adult there was no provision at all.

JOINT PURCHASE OF HOSPITAL SUPPLIES

How the State Hospital Commission of New York Successfully Purchases for Thirteen State Hospitals—Personnel of Purchasing Committee—Enforcement of Contracts

By T. E. McGARR, State Hospital Commission, Albany, New York

FOR twenty-five years past the insane hospitals of New York state have followed a system of joint purchasing of food, fuel, medical supplies and general equipment under a plan evolved by the State Hospital Commission after considerable preliminary study of possible economies, maintenance of suitable standards of supplies, and methods to insure the delivery of goods contracted for. Even though war conditions have somewhat dislocated its well-running machinery, the results of the purchasing committee's work have been most satisfactory, both to the supervising hospital commission because of proved economy of the system, and to the officers, employees, and patients of the hospitals, because of the excellent standards maintained in the contracts made.

In the administration of public charities, economy alone should not be the paramount aim of supervisory bodies. In our state it is of much greater importance that our sick family of 37,000 patients shall have suitable grades of food, medical supplies, and equipment, and that the responsibility of contractors shall, at all times, be enforced to the letter. To this end, analyses of coal, flour, food supplies, including dry and wet groceries, are frequently made at the chemical laboratory established by the committee.

After an experience of several years with joint purchasing methods the hospital commission decided that, while individual hospitals should be represented in a central agency to bring about the best results, the committee must be composed of medical superintendents, assisted by hospital stewards whose knowledge of general and local markets would be of value. Accordingly, some eight years ago the present purchasing agency was established, consisting of three hospital superintendents, two hospital stewards, and a representative of the hospital commission. Two advantages result: first, the physical well-being of the patients so far as proper food supplies contribute thereto, is insured; and, second, the presence on the committee of hospital stewards with more intimate knowledge of markets and familiarity with business methods has resulted in the constant practice of prudent economy.

All purchases of food supplies under joint contracts are based, as to quantities, on a ration allowance originally recommended in 1901 by the late Professor Atwater and later modified as a result of hospital experience. A series of weekly dietaries suitable to the needs of the different types of patients under treatment is prepared at the individual hospitals by the steward, with the assistance of the dietitian. The preparation of these dietaries requires experience and judgment of a high character. In certain of our hospital buildings in which all newly received and

acute cases are quartered and in which the grade of treatment closely approximates in many details the standards maintained in general hospitals, the per capita cost does not fall much below $14 per week, an indication that our state leaves nothing undone for the active treatment and recovery of its insane patients, and particularly of those belonging to the recoverable class. In the departments for the old and infirm—especially in those in which the women patients are quartered—the dietary can properly be reduced to the minimum cost, as these aged patients are always entirely unappreciative of different grades of food supplies.

Briefly, the program of the committee in making joint contracts is as follows:

At stated intervals throughout the year each of the thirteen state hospitals forwards to the revision department of the State Hospital Commission a statement of its needs in the line of such articles as have been found, through the experience of the purchasing committee, suitable and advantageous for joint purchase. As soon as revision of the quantities and grades has been completed, the committee attaches to the quantity sheets the specifications and bidding blanks covering the goods, and, after due advertisement, supplies these to all applicants. Upon the day set for the public opening of the bids, very careful attention is given by the entire committee to the standing of bidders and to the quality of the samples. The prices submitted cover deliveries practically to hospital storehouses, and surety bonds are exacted from the contractors. Through such preliminary precautions the purchasing committee has found very few causes for complaint against contractors, and the number of cancelled contracts has reached the vanishing point.

Upon the completion of contracts made by the purchasing committee, notice to that effect is forwarded to the state hospital stewards with full information as to grades, quantities, and times of delivery. Each hospital orders these contract goods directly from the contractors in such quantities as its necessities require and storehouse accommodations permit.

The State Hospital Commission has recently authorized a plan under which our hospitals exchange with one another, whenever desirable (and whenever stewards can agree as to the *quid pro quo*), any excess of fruits, vegetables, or other supplies grown on the respective farms.

In establishing a joint purchasing agency, the State Hospital Commission was careful to limit its activities to those larger hospital staples the purchase of which in bulk would insure prices that could not be secured by individual hospitals in local markets, recognizing the fact that to the respective hospital stewards should be given the privilege of purchasing locally, after proper competition, supplies of an emergent character and of taking advantage of seasonal conditions existing in the hospital neighborhood. Thus, during a recent general shortage of fruit crops, a remarkable surplus was shown in the western part of our state, and two of the hospitals of that district were able to secure high grade apples at a remarkably low figure. Also, whenever unusual congestion of market conditions arises, hospitals located in the metropolitan districts are often in a position to buy for cash goodly stocks of supplies or equipment at prices which could not be secured through the committee's contracts if these were to extend over three or six months or longer. Information as to such opportunities is communicated to all hospitals by the committee after it has satisfied itself as to the quality of the goods.

An interesting feature as to the joint distribution of supplies in our state has been made possible by the establishment of a central coffee-roasting plant, at one of the state hospitals which has been placed under the supervision of a steward member of the purchasing committee. Coffee bought in the green berry in large quantities is carefully roasted at this plant and delivered to the hospitals throughout the state at an extremely low rate. But one grade of coffee is supplied to officers, employees, and patients.

At this hospital a central printing and binding establishment is also maintained at which are printed the blanks and record books required by the State Hospital Commission and its different branches and by the hospitals. At this plant, also, are printed the official *State Hospital Quarterly* and the official handbook of the State Hospital Commission, many of the hospital patients being employed in this work.

Some idea of the scope of the committee's work may be gained from the fact that five million pounds of fresh meat and forty thousand barrels of flour are required annually for the thirteen state hospitals and are covered in the committee's joint contracts. Coal contracts alone total nearly one million dollars in value.

The cost of maintaining the state hospital joint purchasing agency, including all salaries, supervision, clerk hire, chemist, maintenance of laboratory, etc., is extremely small, amounting, during the last full year, under expensive war conditions to less than 0.5 per cent of the total amount of the goods purchased. A measurable degree of success may confidently be claimed in the results thus far shown by the committee as now constituted, and, as pre-war conditions return, still higher achievements may confidently be expected.

REEDUCATION FOR MAIMED AND DISABLED OFFICERS AND PRIVATES

Results from the Use of Artificial Limbs—War Risk Insurance Bureau, U. S. Public Health Service, and Federal Board for Vocational Education Cooperate in Rehabilitating the Disabled Man

By J. O. COBB, M.D., Senior Surgeon, United States Public Health Service, Chicago

WHEN officers and privates are discharged from the army and navy for disability, they fall automatically under the care of the War Risk Insurance Bureau. The principal function of this bureau is to furnish promptly the means and artificial limbs or other appliances necessary to enable these disabled men to adopt suitable vocations, where they may be able to earn part or all of their livelihood.

Very satisfactory service can be obtained by the use of artificial limbs, depending largely, of course, upon the points at which amputations have been made, and whether one or both limbs have been lost. Patients with an amputation below the elbow of one arm only, have the widest range of usefulness. Some of these men learn to use the artificial fingers and hand with astonishing efficiency, especially in conjunction with the good hand. Even with both arms off below the elbow, it is gratifying to watch such men use tools, or mop and sweep, or spade and shovel. The handling of a wheelbarrow is an easy matter for them.

Where the amputation is above the elbow, the varied usefulness of the artificial arm is much less efficient. One would hardly expect that a useful artificial arm for a shoulder joint amputation could be constructed; such is not the case, however, for, with only one arm missing, these men can carry grips or bundles, raise their hats, salute, tie their neckties, and dress themselves. The most difficult problem for the manufacturer of artificial arms is the double amputation at the shoulder joints, or of both arms above the elbow, but these, too, have been mastered to a large extent. These cases are able to help themselves in many useful ways, such as feeding themselves, carrying bundles, using the wheelbarrow, and using specially made tools, etc.

The loss of a leg is not such a calamity as the loss of an arm. An amputation of one leg below the knee is not a serious physical handicap. Double amputations of both legs are not hopeless, as such cases learn to walk without a limp, learn to dance, learn to go up and down stairs on their toes, and to walk long distances.

The physical handicaps from higher amputations are not so easily overcome, but the men who suffer from them also learn to use their artificial limbs in a very satisfactory manner.

A discharged officer or private who has suffered an amputation is sent by the War Risk Insurance Bureau to a conveniently located marine hospital of the U. S. Public Health Service to be fitted and trained in the use of his artificial limb. Considerable attention for such cases is required to harden the skin and properly mold the stumps by massage and bandaging. Then, when the use of the limb is commenced, it requires time and practice to become proficient in its use, the length of time depending, of course, upon the point of amputation.

In thousands of cases mutilations from shell wounds or loss of limbs will necessitate vocational reeducation. This education is being supplied by the Federal Board for Vocational Education, with special schools conveniently located in the populous centers of the country. In these schools those whose injuries or diseases are such as to unfit them for their former occupations are taught vocations suitable and adaptable to their changed and unfortunate conditions.

Life is not altogether hopeless and meaningless if one possesses the physical means of earning a livelihood, and this the War Risk Insurance Bureau and vocational schools are making possible for the diseased and maimed soldier with astonishing and gratifying results.

The Story of the Pictures on the Opposite Page

Fig. 1. An artificial limb in position. The surgeons here are making a careful analysis of the working of this man's arm.

Fig. 2. This is the way the arm looks when it is detached. This same mechanism, directed by its owner, can pick up objects from the table, carry satchels, etc., and use a variety of instruments with remarkable results.

Fig. 3. This young man slips on a couple of arms like a pair of gloves. His independence is complete, for he is about to show the interested by-standers how he puts on the artificial arms and harness unassisted.

Fig. 4. A broom is not, perhaps, among the most useful instruments which a man with an artificial arm can wield, but, if the need arises, there is nothing about it to prevent its operation. He experiences no difficulty in keeping his front doorstep clean.

Fig. 5. Showing the muscles of an artificial arm. This mechanism is as good for picking up and carrying things as the arm which it replaces. The patient can also give a military salute, slip on his coat, shave himself, and tie a four-in-hand.

Fig. 6. Shaking hands and patting old friends on the back are among the minor acts of life which do not need to be given up by the man with an artificial arm. This man could be said in truth to have a "grip of iron."

Fig. 7. This man has amputation of right shoulder joint and middle of left humerus and arm. He is shown carrying his satchel and hat. He has taken his hat from his head unassisted.

Fig. 8. United States Marine Hospital, Chicago, is one of the various hospitals in the United States where the medical work in connection with the War Risk Insurance Bureau is performed by medical officers of the United States Public Health Service.

Fig. 9. The man shown here ascending the stairs on his toes has two artificial legs, which are made of wood, steel, rubber, and aluminum, which serve him almost as well as the legs which they replace. He can descend easily and is also able to crank an automobile.

Fig. 1. Debarkation Hospital No. 1, Ellis Island, New York, was formerly an immigration station and is now used as a clearing hospital from which patients are distributed to various special hospitals.

THE HOSPITALS OF THE PORT OF EMBARKATION

Novel and Stupendous Problems Presented in Handling the Sick and Wounded at the Port of Embarkation – Sixteen Hospitals Organized with a Capacity of Seventeen Thousand Beds—Work Consists of Conversion of Old Buildings as Well as of Construction of New

By Our New York Correspondent

AMONG the many problems presented to the Surgeon-General of the United States Army by the war was that of providing hospital accommodations where and when they would be needed. This required the exercise of a remarkable degree of foresight, for it was essential that the hospitals should be ready and waiting when the patients arrived.

In camps and cantonments the matter was relatively simple. The proportion of men on the sick list under the normal conditions of training is well known. The statement made by the Surgeon-General to the Senate Committee on Military Affairs in December, 1917, showed that the failure to provide adequate hospital facilities for the troops called to arms in the summer and fall of 1917 was in no wise due to the medical department of the army. That department had furnished plans for adequate hospital facilities and had urged that the hospitals be given precedence in the construction of cantonments. Moreover, specific warnings of the dangers from overcrowding and from lack of hospital room had been repeatedly sent to the Secretary of War by the Surgeon-General.

When it came time to deal with the despatch of troops overseas the problem became much more complicated. The rate at which the men were to be sent abroad was fixed at an approximate figure and plans were made accordingly. But Marshal Joffre came in person to the United States and told some inside facts to the authorities. Just what he said is not known to the public and may never be known. He must, however, have indulged in plain speaking, for the systematic and somewhat leisurely plans for transportation of troops were at once abandoned. Every available vessel in Great Britain was hurried across the Atlantic, and our men shipped at the rate of three hundred thousand or more a month.

Every one of these three hundred thousand men was examined physically both by the medical officers of his own command and by medical officers acting for the surgeon of the port of embarkation. For transport purposes the Atlantic seaboard was divided into two administrative districts. The southern port of embarkation with headquarters at Newport News embraced all ports to the south while the northern port of embarkation embraced all the ports from Baltimore to the north; even Montreal, Quebec, and Halifax had representatives of the surgeon of the port, who looked after the health of the many thousand United States troops who sailed from those ports.

Fig. 2. Debarkation Hospital No. 5, at Lexington Avenue and Forty-sixth Street, New York, formerly the Grand Central Palace.

All the sick were detached from the units going overseas by the surgeon of the port and sent to some one of the hospitals under his supervision. Col. J. M. Kennedy, M.C., the surgeon of the port of embarkation at Hoboken, has some sixteen hospitals under his command with a total capacity of 17,000 patients. These hospitals had to be built, requisitioned, or improvised. At the embarkation camps, Camp Upton, Camp Dix, Camp Mills, and Camp Merritt, the hospital space required was provided in the camp hospitals. These were of the familiar cantonment construction and provided accommodations as follows: Camp Upton, 2,000 beds; Camp Dix, 2,000 beds; Camp Mills, 2,000 beds; and Camp Merritt, 2,500 beds.

Civilian hospitals were then taken over for immediate use. These included St. Mary's Hospital at Hoboken with 600 beds, which was renamed Embarkation Hospital No. 1, a hospital at Secaucus, N. J., about ten miles inland from Hoboken, with 285 beds, which became Embarkation Hospital No. 2, and the hospital on Hoffman's

Fig. 3. U. S. General Hospital No. 39 was formerly the Nassau Hotel on the ocean front at Long Beach, Long Island.

Island in lower New York Bay which had been used by the immigration authorities as an isolation hospital and which was designated as Embarkation Hospital No. 3. U. S. General Hospital No. 1 at Williamsbridge, a suburb of New York, which had been erected on Columbia University athletic grounds by private subscription, was taken over by the surgeon of the port of embarkation as General Hospital No. 1. While the Rockefeller Demonstration Hospital at Sixty-sixth Street and Avenue A, New York, a model hut hospital with forty-eight beds was maintained and operated by the Rockefeller Institute for Medical Research, which had erected it, it became for administrative purposes a part of the hospital system of the port of embarkation because the patients in it were drawn from the forces under the jurisdiction of the surgeon of the port. Officially it is known as U. S. Auxiliary Hospital No. 1. The New York Polyclinic Hospital at 345 West Fiftieth street, New York, provided 354 beds already equipped. This is designated as Debarkation Hospital No. 4.

A hospital of the cantonment type with 1,750 beds was also erected at Fox Hills, Staten Island, and named U. S. Debarkation Hospital No. 2.

The cessation of immigration left the immigration station on Ellis Island idle, and it was taken over by Colonel Kennedy, converted into a hospital of 1,086 beds, and named U. S. Debarkation Hospital No. 1.

The Hotel Nassau at Long Beach on the southern shore of Long Island about forty miles from New York, was converted into U. S. Debarkation Hospital No. 4 and provided 1,000 beds. This has since been designated as General Hospital No. 39, directly under the control of the Surgeon-General.

The Greenhut Store building, in the heart of New York, reaching from Eighteenth to Nineteenth streets on the east side of Sixth Avenue, had been unoccupied for some time and this was taken by the government and converted into U. S. Debarkation Hospital No. 3 with a capacity of 3,400 beds.

The government also has taken the Grand Central Palace, a modern building twelve stories high

Fig. 4. General Hospital No. 1, Williamsbridge, New York, was erected under the auspices of Columbia University by popular subscription on the athletic field.

containing 601,000 square feet of floor space, which occupies the block bounded by Forty-seventh Street, Lexington Avenue, Forty-eighth Street and Park Avenue, New York. This furnishes an additional 3,400 beds and is designated as U. S. Debarkation Hospital No. 5.

The equipment, organization and coordination of all these sixteen hospitals has been a tremendous task. Each institution presented a different set of problems for solution. Where a going hospital was taken over, the task was comparatively simple; the terms of lease were arranged, the skeleton staff was designated by Colonel Kennedy, and the officer put in command was allowed to perfect his own organization, being provided with officers, nurses, and men according to the requirements of the case.

The organization of the newly built hospitals also followed well-established lines which had been laid down in the work of organizing cantonment hospitals all over the country, but the conversion of the Greenhut Building and the Grand Central Palace into hospitals presented novel and interesting problems which required the exercise of much originality and great resourcefulness on the part of the officers assigned to this duty. How these problems were met will form the subject of a later article.

HOSPITAL STANDARDIZATION CONFERENCE IN ST. LOUIS

Meeting Part of Program of American College of Surgeons to Help Hospitals Become Health Centers of Communities

A great hospital standardization conference was held in St. Louis on February 19 under the auspices of the American College of Surgeons. Preparations had been going forward for a month previously and the conference brought together hospital superintendents, trustees, medical staff members and others interested in hospitals from eastern Missouri and southern Illinois. This issue of THE MODERN HOSPITAL goes to press before the conclusion of the meeting. Next month a report of the meeting itself will be published.

The program of the St. Louis meeting was as follows:

The Occasion for the Conference, Dr. Harvey G. Mudd, Chairman, St. Louis.
What Is Hospital Standardization? Dr. John G. Bowman, Director of the College, Chicago.
The Machinery for the Care of the Patient: (a) Laboratories, Their Equipment and Management, Dr. L. H. Burlingham, Superintendent, Barnes Hospital; (b) Case Records, Dr. Wm. Engelbach, Professor of Medicine, St. Louis University, President, St. Louis Medical Society.
Discussion opened by Dr. C. H. Shutt, Hospital Commissioner.
The Hospital and Its Community (A picture of what a hospital can mean to its community), Dr. John A. Hornsby, Washington, D. C.
The Doctor's Part, Dr. George Dock, Professor of Medicine, Washington University.
The Hospital's Part, Mr. A. Waldheim, President, Jewish Hospital, St. Louis.
The Citizen's Part, Mr. George D. Markham, Chairman, Charities' Committee, Chamber of Commerce.
Discussion opened by Dr. J. L. Wiggins, East St. Louis.
Health as an Asset, Dr. W. A. Evans, Chicago.
Team Work for Success, Chas. B. Moulinier, S. J., President, Catholic Hospital Association, Milwaukee.
Hospitals After the War, Dr. John G. Bowman.
What to Do: A Summary, Dr. J. A. Hornsby.

A similar meeting was held in Memphis under the same auspices on February 22, and a third meeting was held in New Orleans on February 25. During March and April a score of meetings are to be held in the south. Conferences also are being arranged in the east and in the west.

The college is vigorously prosecuting its program of helpfulness to the hospitals in all parts of the country. There seems to be a universal awakening on the part of the hospitals and of the medical profession to the constructive plan of the college.

The college believes that the medical profession is responsible for the care of the sick, that it is the duty of the medical men to help their hospitals provide the facilities for such care according to the highest ideals of modern medical science, and that the hospital not only is a place in which to take care of the sick, but should be the health center of its community, a center which teaches the community how to keep well.

FIFTH ANNUAL CONVENTION OF OHIO HOSPITAL ASSOCIATION

Will Be Held in Cleveland Near the Last of May—Committees Already Appointed Will Represent Many Ohio Hospitals

The Fifth Annual Convention of the Ohio Hospital Association will be held at the Statler Hotel, Cleveland, on May 20, 21 and 22, 1919, and its committees have been appointed by President Warner.

The legislative committee, under Rev. A. G. Lohman of the German Deaconess Hospital, Cincinnati, as chairman, will consist of Miss Marie A. Lawson, City Hospital, Akron; Father M. F. Griffin, St. Elizabeth's Hospital, Youngstown; Mr. F. E. Chapman, Mount Sinai Hospital, Cleveland; Miss Mary Jamieson, Grant Hospital, Columbus. The committee on constitution and rules will be composed of Mr. C. B. Hildreth, St. Luke's Hospital, Cleveland, chairman; Sister Genevieve, St. Elizabeth's Hospital, Youngstown; and Dr. E. R. Crew, Miami Valley Hospital, Dayton. Father C. H. LeBlond, director of Catholic Charities, Cleveland, will be chairman of the committee on nomination; the other members will be Miss Daisy Kingston, Fremont, and Miss May Moore Russell, Jewish Hospital, Cincinnati. The committee on membership will consist of Rev. J. Diekman, Bethesda Hospital, Cincinnati, chairman; Sister A. M. Purcell, St. Vincent's Hospital, Toledo; and Miss Rose K. Steinmetz, Children's Hospital, Akron. Under Mr. P. W. Behrens, Toledo Hospital, Toledo, as chairman, the auditing committee will consist of Miss Nellie I. Templeton, City Hospital, Salem, and Mrs. C. L. Butterfield, Martins Ferry Hospital, Martins Ferry. A special committee to draft resolutions on the death of Mr. Bunn has been appointed to consist of Father M. F. Griffin, St. Elizabeth's Hospital, Columbia, chairman; Miss Alice Thatcher, Christ Hospital, Cincinnati; and Miss Florence Dakin, Middletown Hospital, Middletown. Mr. C. B. Hildreth, Mrs. Robert Crowell, and Mr. Guy J. Clark, all of Cleveland, have been appointed chairmen respectively of the three subcommittees for reception, entertainment, and purchasing and erection of booths.

Economy and Efficiency Should Back Each Other Up

Economy and efficiency are two important goals which hospitals try to keep before them in their management. Economy without efficiency in the care of the sick is hardly creditable. Efficiency without economy is indicative of ignorance and poor management.

FARMING AND GARDENING IN STATE INSTITUTIONS

Work Done by Inmate Labor and Supervised by Paid Employees Yields Bountiful Supply of Valuable Produce—Canning and Preserving the Surplus—Neat Financial Profit from Hog Fattening

By FRANK DUMMER WHIPP, Fiscal Supervisor, State Department of Public Welfare, Springfield, Ill.

SINCE the consolidation of the one hundred state boards and commissions in Illinois into nine departments, and the state institution management into the Department of Public Welfare with a general office in the capitol building at Springfield, controlling the operation of twenty-three state penal and charitable institutions, it has been possible to arrange for an interchange of products among the various institutions, thus adapting the farms and gardens to the general needs of all.

The institutions include nine hospitals for the insane, one institution for feeble-minded, one for epileptics, two for the blind, two training schools, one for boys and one for girls, three soldiers' institutions, two penitentiaries, one reformatory, one school for the deaf, and one eye and ear infirmary.

Many of the institutions with large farms and gardens have been able to produce more than they consume of certain products, and these have been transferred to the other institutions needing them.

Illinois owns 11,000 acres of land with approximately 9,000 acres available for planting farm and garden produce. The largest farm is 2,200 acres at Joliet. There are four other large farms consisting of 1,000 acres each, one at St. Charles, one at Kankakee, one at Dixon, and one at Alton. The remainder of the farms range in size from 20 acres to 600 acres.

Nowhere is there a greater need for a generous supply of vegetables and produce than in our institutions. Much of this produce has great dietetic value, keeping the inmates in a healthful physical condition, and largely decreasing bills for medicine. The population to be fed every day consists of about 31,000 people. Of this number 17,000 are insane, 4,000 are in the penal institutions, and the balance are in the other institutions.

The farm and garden work is done by inmate labor, supervised by paid employees. The farms are inspected regularly by an official from the department of public welfare, the farm, garden and dairy consultant. This official consults with the different farmers and gardeners, keeps in touch with all of the institutions, and provides for the interchange of articles between them.

Last year the Department of Public Welfare made a strenuous effort to increase the yield of these farms and gardens, and, as a result, the total yield was over $780,000 for the year, which record was far better than any other year in the history of the state. Early last spring, instructions were given to institution officials not to let any of the produce go to waste but to can and preserve all of it, and the idea met with most hearty cooperation. The canned vegetables, according to estimated prices at the present time, amount in value to $70,000, while the fruit preserved is worth $5,000. The largest quantity of vegetables prepared was approximately 700 barrels of liberty cabbage. If these barrels were placed lengthwise in a row they would reach a distance of almost one-half mile. Some of the other larger quantities of vegetables were: tomatoes, 38,464 gallons; cucumber pickles, 12,294 gallons; corn, 3,252 gallons; green beans, 6,080 gallons; rhubarb, 3,125 gallons; and mixed pickles, 6,155 gallons. The larger quantities of fruits preserved were: cherries, 1,389 gallons; grapes, 494 gallons; blackberries, 736 gallons; and grape jelly, 549 gallons.

One of the most profitable departments of an institution is that which supervises the fattening of hogs. The hogs are fed almost exclusively waste from the dining rooms and kitchens, and are fattened almost entirely without the use of grain. They have provided tons of pork for institution consumption. Where there is a shortage of feed at one institution, hogs are transferred to other places where there is a more abundant supply.

Three herds of dairy cattle have been established at new institutions without the purchase of a single animal, by transferring surplus cattle from other institutions. There was considerable transferring done last year. At least $10,000 worth of stock feed was transferred from the Illinois State Penitentiary farm at Joliet to the other institutions, and there was a constant exchange of various kinds of other produce between all the plants.

Aside from the financial record that has been made by these farms and gardens, it has been found that the healthful outdoor work has been most beneficial to the inmates.

CHILDREN'S PAVILION AT SHARON SANATORIUM

Department for Children in Connection with Woman's Sanatorium for Tuberculosis—Every Provision for Fresh Air—Monitor System Used—Healthful Living Paramount

By WALTER A. GRIFFIN, M. D., Superintendent Sharon Sanitorium, Sharon, Mass.

THE Sharon Sanatorium at Sharon, Mass., which for a period of more than twenty-five years has treated women of limited means for pulmonary tuberculosis, is now about to institute a new department for the treatment of children. The

Fig. 1. Building of the children's department of Sharon Sanatorium at Sharon, Mass.

need of such a department is evident; many children are now placed in open-air schools so that they may have the maximum of hygiene while the necessary studies are going on, and there are thousands of children of tuberculous parentage, or with glands in the neck, or possibly some bone lesion, and many others, who are run down, anemic, and with a poor start in life, who would be greatly benefited by some months or a year or so of treatment in an institution where the question of hygienic living is paramount. It is to fill such a need that the new work is to be undertaken at Sharon.

The new building is back of the main sanatorium and is far enough away so that there will be no disturbance to the older patients because of the noises which might be expected in a children's sanatorium. It is, however, placed near enough for easy administration.

The building, a picture of which is shown, is made of reinforced concrete, and the Van Gilder system of construction is used. By this system the outside walls are double, each wall being 4 inches thick, and there is a 2-inch air space all about the building. The walls are erected with a special machine which allows the forms to be moved as quickly as the cement is tamped in. Frequently, on straight work, they are moved at the end of six minutes from the time the first cement is put in. The longest form will lay up a double wall 5 feet long and 9 feet high, and since unskilled workmen can be used for the most part, the cost is hardly more than would be necessary with the best frame construction, especially if there is a good quality of gravel near at hand. A good gravel bank does exist at Sharon, and the gravel did not need to be screened but could be brought directly from the bank and put through the concrete mixer. Naturally, such a building is perfectly fireproof on the outside, and, in the case of the pavilion at Sharon, it was made nearly fireproof on the inside by constructing all partitions of the basement and the first floor of cement, and the first floor itself is a reinforced concrete slab.

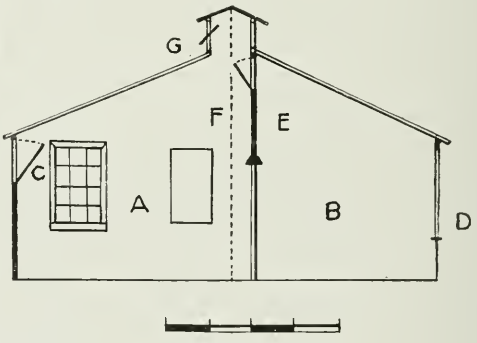


Fig. 2. Side elevation of ward and sleeping porch of children's department of Sharon Sanatorium, showing ventilating system. The height from the floor to the top of the monitor is 15 feet.

A Ward, 13 feet wide.
B Sleeping porch, 10 feet wide.
C Sash, 8 inches deep.
D Screen.
E Partition.
F Sash.
G Sash, 12 inches deep.

Above the first floor the construction is wire lath on wood. The roof is sparkproof paper shingles.

The building is arranged with the central administration portion, consisting of nurse's room, office, diet kitchen, and dressing rooms on the first floor, and a large assembly room on the second floor and rooms for assistants and help. One small room is also set aside as an operating room. From the central portion of the building jut two wings, one on each side. These will be the wards, each

to contain ten patients, one for boys and one for girls.

Particular attention has been given to ventilation in the wards, a modification of the monitor system being used. By this system, as Dr. John Fish of the Massachusetts Hospital School has proved, foul air and smoke can be most quickly eliminated from a room. The only thing that is necessary is a small aperture for exit at the top, a small opening at the bottom for fresh air to enter, and a low degree of heat. With such a system of ventilation, foul odors are quickly carried off and, in fact, never are in evidence. Foul dressings may be done at one end of such a ward and no odor of it reaches the farther end.

Each ward is divided by doors hung on a track through the center so that the portion on one side of these doors may be used as a warm dressing place in winter weather and the other portion as a sleeping balcony. The monitors are in the roof of the ward proper, but that no dead air may remain in the ceiling of the sleeping porch, windows are arranged to allow any dead air to escape into the ward and so into the monitor. The arrangement can be easily understood by the drawing. In the summer time the doors which separate the ward into two parts may be taken from the track and stored away. A very simple device makes it possible to open the monitors from the floor by pulling on cords, three windows being closed or opened at one time. These windows of the monitor are pivoted in the center, so that a perfectly weatherproof connection is made when the windows are closed, and since half of these windows are on the south side of the monitor and half on the north side, it would be a very wild storm indeed which did not allow of some aperture in the monitor being opened. In addition to the monitor there will be a clear sweep of air on the sleeping porch side, where there is no obstruction from the railing to the eave line, and in the ward portion where there are arranged windows 5 feet above the floor, hinged at the bottom, so that they may be dropped open at the top and allow for ventilation without direct draft.

A dressing room is placed in the main portion of the building for each ward. In this dressing room are toilets, wash bowls, and a locker for each patient. These lockers are 18 by 20 inches and each one has in the lower part a liberal-sized drawer. They are so arranged that the cover for the drawer extends out a bit from the locker and thus makes a shallow step on which the patients may sit, if necessary, or upon which they may stand to reach things inside the locker.

The floor of this room and of the ward is of plastic linoleum and is the most disappointing part of the whole structure since it has shown a tendency to pit badly with the rubber wheels of the beds. It was hoped, when it was decided to use this material, that the floor would be warmer than cement, less noisy, and as impervious to dirt and moisture; it would be perfectly satisfactory were it not for the pitting mentioned above.

Connected with each ward is a small room which has a separate veranda, quite isolated from the rest of the building. These rooms will be called "emergency rooms" and here any patient who is more than usually sick or who may be suffering from some intercurrent acute infection may be kept. It is intended for one bed, but if necessary, probably two patients could be accommodated.

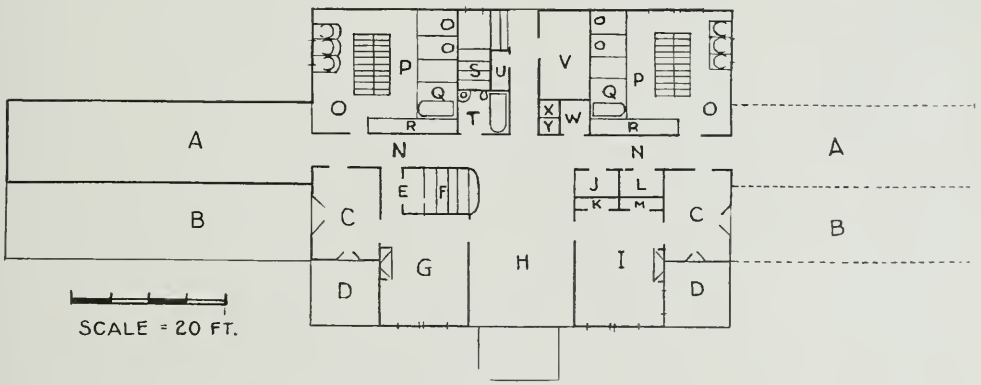


Fig. 3. Floor plan of building for the children's department of the Sharon Sanatorium.

A Ward.
B Veranda.
C Emergency room.
D Emergency veranda.
E Closet.
F Stairway.
G Nurse's room.
H Hall.
I Office.
J Linen room.
K Closet.
L Basket room.
M Closet.
N Corridor.
O Dressing rooms.
P Lockers.
Q Bathrooms.
R Vents.
S Stairway.
T Nurses' Bathroom.
U Service closet.
V Diet kitchen.
W Toilet.
X Ice.
Y Chute.

The assembly room on the second floor of the building will be used at first as a schoolroom, and, while it has no definite monitor, an endeavor was made to carry out the monitor idea by extending the ceiling to the rafters, thus bringing three of the windows which would otherwise be in the attic close up to the ceiling of this room. These windows, when open, will obviate any possibility of stagnant air.

The building was constructed from funds subscribed by various individuals, and such funds have now been largely exhausted so that little is left for maintenance. It is hoped that other friends of the sanatorium may help out on this side of the work. The price of board will be ten dollars per week and will also include the services of a teacher. Naturally, with such a price, there will always be a deficit, since in these days of high prices it will cost at least twenty or twenty-five dollars per patient.

THE MEANING OF CASE RECORDS

Case Records Are a Responsibility Which the Hospital Owes to Its Directors, Patients, Interns, and Nurses as Well as to the Medical Profession at Large—Should Be Made Important Part of Hospital Discipline

By J. M. BALDY, M. D., President Bureau of Medical Education and Licensure, Philadelphia

THE lack of knowledge of the meaning of case records is probably one of the factors which makes it so difficult to enlist the active and practical interest of doctors in this part of hospital work. Although often fully aware of the importance of business records, superintendents are so frequently indifferent to case records as to elicit wonder and throw themselves open to the opinion that their lack of interest rests upon their inclination to follow the line of least resistance; consequently they make themselves liable to misinterpretation regarding their judgment in their other duties. Boards of managers are so negligent of many of the ramifications of their administrative duties that they notoriously rely upon their superintendent's and staff's judgment of their own fulfillment of their several duties. They quiet their conscience for neglect of such details by assuming that the "king can do no wrong," and that therefore the case records are properly kept; or else they take it for granted that, since they are not properly attended to, the importance of the subject must be so small as to be negligible. The consequence of all this is a series of case records in hospitals which on the whole are sublimely ridiculous and which entail on the hospital budget an utterly useless expenditure of funds. Why continue to waste money on the paper and ink? It is incomprehensible how any successful business man who knows perfectly well that his business would probably have resulted in chaos if his books had not been accurately kept, can fail to recognize that there must be an enormous loss to the business of the hospital without similar care. His plea has been that in the *business end* of the hospital the books have been properly and carefully attended to. But what kind of a business man must he be who accurately conducts one department of his affairs and deliberately turns his back on all the other departments? Surely every manager must realize that there is a scientific side to the hospital business; and if he desires to run a hotel only, why not cease meddling with a complex business and run a hotel purely and simply? The hotel department is only one part of the hospital. Since it seems that hospital managers must be instructed in this matter, let me set them right once for all.

On the scientific side of the hospital there should be a record department headed by an individual whose duties consist in properly filing and preserving the case records; whose powers are extended enough for him or her to be able to refuse to file any record whatever until it has been fully completed as required by the rules of the hospital, notwithstanding the wishes or opinion of any member of the staff to the contrary. This is a matter in which staff members will have to be severely disciplined before competent results can be obtained, and this discipline should extend to the retirement of all recalcitrant individuals. The ordinary plea made for neglect is that the doctor is a busy man and has no time to spare; even superintendents so excuse their staffs. There is only one possible answer to this; if the doctor is too busy to attend properly to the duties he has sought and assumed, he has no moral right to continue on the staff. If the cook stated that she was too busy to prepare the essential parts of the dinner because she had outside affairs of her own, she would shortly be separated from her job. So should the doctor. There has been no greater obstruction to hospital improvement than the doctors of a certain class who have sought and retained positions on the staff of two or more institutions and have not only neglected

to attend to the work properly but have kept other and better men out of the opportunity.

Case records are educational—educational to the intern, to the nurses, as well as to the attending chief. Further, they are educational to the board of managers as well as to their agent, the superintendent. They are a protection to the institution against suits for damages. They are an assurance to the patient of proper treatment. They are an assurance to the public who contribute to the support of the hospital that their money is being properly and helpfully expended. Case records not only demonstrate whether or not the physician is giving proper attention to thoroughgoing and exhaustive diagnosis but actually secure this most desirable result by creating the consciousness of an open record which is regularly checked up. Last but not least they are most helpful, through potential research, in the advancement of medical knowledge and therefore useful to the whole world. What a wealth of usefulness has been lost by the neglect of the despised case records!

In these days of hospital standardization and incidental intern education, it may be fairly estimated that such a positive value to both the intern (from the viewpoint of the value of the hospital service to his education) as well as to the hospital, is to be found in the proper taking of case records that every care should be given to making them complete. Or a system should be developed by which records from all the several departments of the institution, including the laboratories (both pathological and x-ray) shall come automatically to the record department in order that the responsible head may daily ascertain whether or not the individuals throughout the institution who are responsible for making up these records are consistently attending to their duties. Means of identification between the various departments of the hospital doing work on the patient is most important and is in itself an assurance that the interested inspector of the record is surely placed in touch with all the facts—facts which may be most essential and which might otherwise be overlooked.

No patient should be discharged from the institution without his or her records having been checked up in the record department and any deficiencies in this respect promptly rectified. The system should be so developed that it shall not be possible for any single department in the hospital to neglect this most important part of its functions without the neglect being promptly noted. It should be made comprehensive enough by cross-indexing to enable one to proceed with equal ease from the record room (in the case of any individual patient) to the specimens, slides, and records kept in the pathological laboratory, and to the plates and records kept in the x-ray laboratory, as well as to start from the laboratory records in these laboratories and to proceed promptly to the proper records in the record room.

The efficient keeping of records of the cases admitted to the house service is basically essential to the education of the intern. It is not out of the way to estimate that 30 percent of the benefit derived by the intern from his education in the internship is involved in the record-keeping, and the proper conduct of this function should be remorselessly insisted upon. No service of the intern can be considered competent which does not take into consideration history-writing. It is only by the intern's actually noting on the history sheet the history of the patient, the physical findings, and the diagnosis reached that the chief can obtain a competent idea, first, of the basic knowledge with which the intern started, then of the progress he may be making, and consequently the degree to which he may be trusted. On the admission of a patient to the wards of the hospital it becomes the primary duty of the intern promptly to see the patient, to take the history as well as the physical findings, and to note them carefully upon the proper sheets. No excuse should be accepted for failure to perform this function, and the intern who neglects it should be promptly disciplined.

The notes thus taken should be available at the bedside when the visiting physician makes his first visit. In making his examination the visiting physician should have in hand the findings of the intern, and note the result first of all; during his investigation he should compare and check up the intern's findings with his own, calling the attention of the intern to the discrepancies, and having him re-examine for certain points where necessary. The future conduct of the case, operative or medical, should consist in the discussion with the intern of the benefits of the treatment primarily applied, of the necessities for any change, and the results looked for by such changes—all this in view of the actual notes as to the progress of the case made by the nursing and intern departments. As a routine, if the history is not prepared by the intern and ready for his chief, it should be the duty of the chief to decline to examine the patient (excepting in an emergency) and demand of the superintendent that the intern drop anything with which he may be engaged and proceed promptly to the taking of the history. In the institution where it is understood that such action will result, this type of neglect will rarely occur. In no other way can the

staff member obtain competent control of the intern's service.

The history sheet of the intern should contain the O. K. of the visiting physician, and the fact that it is missing should be sufficient evidence to the record department that the staff member himself is not performing his proper duties either to the patient or the intern. After the physician's attention has been called to the matter (if the offense be frequently repeated) the fact should be promptly transmitted to the superintendent and through him to the board of directors for their information and proper action. Any hospital board which does not secure such service from its staff members fails administratively; what is asked, therefore, can not be regarded as a hardship—unless it be a hardship for the board of managers and superintendent to be called upon to give intelligent thought to the responsibilities which they have not only voluntarily assumed but in most cases have sought. The intelligent conduct of the history work on the part of both the intern and the staff is an index to the competency of the work being performed on the patients.

The compulsion thus routinely enforced upon staff doctors of studying their cases carefully and openly, practically in competition with their interns, and placing themselves on public record is of the highest educational value to themselves as well as to their nurses, students, and interns. The extra time taken is negligible in these days of stenographers and dictaphones. A simple and expeditious method, as well as one within the financial possibilities of most hospitals, is for the superintendent to have available to accompany the attending physician on his rounds a stenographer whose duty it shall be to record the dictation of the doctor. This insures the doctor's attention to his obligations, and the well-known excuse of "not having time."

Large and cumbersome systems of records are by no means essential, and there is very readily available a minimum basic record system which is easily possible in any hospital, however small. Such a system has been adopted for the Pennsylvania hospitals and may very easily be expanded to any extent desired by the larger institutions. The essentials of any such system consist in the record room of admission card, history sheet, temperature chart, order sheet, nurses' record sheet, operating room sheet, x-ray-finding sheet, laboratory-finding sheet, diagnosis card, and end result card; in the x-ray laboratory, of record cards and plates; in pathological and clinical laboratory, of record cards, slides, and paraffin blocks. These should all be properly filed in their respective departments, cross-indexed, and preserved permanently in easily accessible places.

There are probably very few hospitals whose staffs do not include a number of doctors superannuated or originally incompetent; men who hold their positions merely for the prestige it brings them and men who avowedly neglect their plain duty to the hospital and to the community. How many boards of directors keep themselves informed in regard to these matters and are in a position to judge of the service rendered? In the past, as a matter of fact, few directors were in a position to know the facts no matter how earnestly they worked to become familiar with them. With properly kept case records, there should no longer be any excuse for this ignorance. The necessity of asking information from unwilling staff colleagues or from prejudiced and interested superintendents ceases. A quiet resort to the record room and a comparison of the records of the various staff members from the scientific departments alone will quickly furnish the desired knowledge; better still, a comparative report presented at each monthly or quarterly meeting of the board as to the comparative activities of the various staff members in their several departments would, when known by the staff, in itself stimulate them to a proper realization of their duties without inviting the necessity of any direct compulsion, at least in the first instance. If only part of the staff saw the proper light, the others would be placed in a position which would insure either their cooperation or their ultimate retirement. If no other result whatever accrued to the board of managers, this alone would amply justify the demand that the staff make good or retire. But other and equally important results follow. It is not only imperative that the board of managers have accurate knowledge as to whether or not its staff is attending to its proper duties; it behooves them also to have firsthand knowledge whether or not the results produced by the several members of the staff are up to the standard and if not, why not. The case records are the only possible accurate source of information on this point.

The medicolegal importance of case records is self-evident. The importance is so great in its relation to property and human freedom their proper keeping should be made legally compulsory.

Medical science has advanced enormously in recent years, but who of us who know the real truth and have had an opportunity to see behind the scenes, can but regret the lost opportunities and wasted material which would have advanced the world many degrees further in knowledge and ability to control disease if it had only been available?

HOSPITAL ACCOUNTING

General Ledger of Average Endowed Hospital With Funds Invested in Real and Personal Property Described—The More Important Accounts Worked Out in Full—Income Ledger and Endowed Bed Ledger Explained

By CHARLES A. PORTER and HERBERT K. CARTER of the Staff of The Modern Hospital

[Continued from February issue, p. 111]

GENERAL LEDGER

It will probably be unnecessary to make any changes in the General Ledger accounts of the average endowed hospital whose funds are invested in real and personal property of various kinds. The usual General Ledger accounts are as follows:

1. Cash.
2. Hospital land and buildings.
3. Equipment.
4. Machinery and tools.
5. Furniture and fixtures.
6. Apparatus and instruments.
7. Treasurer's account with superintendent.
8. Accounts receivable.
9. Stocks.
10. Bonds.
11. Mortgages receivable.
12. Surplus and deficit.
13. Accounts payable.
14. Mortgages payable.
15. General material.
16. Supplies.
17. Loans and notes payable.
18. Hospital earnings.
19. Donations restricted.
20. Legacies restricted.
21. Income from General Endowment Fund.
22. Income from Endowed Bed Fund.
23. Income from special funds.
24. Prepaid insurance.
25. Accrued and prepaid taxes.
26. Capital account.
27. Reserve for depreciation.

It is understood that individual accounts will have to be kept with each creditor and debtor, with each kind of stock, bonds, and piece of real property, and that the Income Ledger and loans and notes payable are not a part of the General Ledger, but are merely descriptive books used for convenience, which it is not necessary for small and private hospitals to keep.

Examples of the more important accounts to be found in the average General Ledger are shown below. No cash account is kept in this book, because the cash book makes it unnecessary.

1

HOSPITAL LAND AND BUILDINGS

Dr.		Cr.	
Total of previous months	$.....	Total of previous months	$..... ....
Capital account	$.....	Cash	$..... ....
For expenditures as shown by Voucher Register and reported by Superintendent as per Journal entry.		For receipts on account of sales as per Cash Book.	
Capital account	$.....	Depreciation reserve	$..... ....
For value of buildings donated to hospital and capitalized as per Journal entry 7.		For depreciation charged off for the month as per Journal entry 20.	
Surplus and deficit	$.....	Capital account	$..... ....
For profit on sale of property as per Journal entry 8.		For loss by fire charged as a reduction of capital as per Journal entry 9.	
		Surplus and deficit	$..... ....
		For loss on sale of property as per Journal entry 9.	
Total	$.....	Total	$..... ....

The difference in the totals equals the value of hospital land and buildings as shown on the balance sheet.

The Ledger accounts with equipment, machinery and tools, apparatus and instruments, etc., should be handled in the same manner.

2

TREASURER'S ACCOUNT WITH THE SUPERINTENDENT

Dr.		Cr.	
Total of previous months	$.....	Total of previous months	$..... ....
Hospital earnings	$.....	Surplus and deficit	$..... ....
As per Journal entry 14. These include receipts of dispensary, emergency ward, and miscellaneous items.		Current expenditures as reported by the Superintendent, as per Journal entry 16.	
Cash	$.....	Capital expenditures	$..... ....
For remittances to the Superintendent as per Cash Book.		As reported by Superintendent, as per Journal entry 16.	
Surplus and deficit	$.....	Surplus and deficit	$..... ....
For surplus material on hand as shown by the Superintendent's report as per Journal entry 15.		For Superintendent's account receivable, charged off during the month as per Journal entry 16.	
		Surplus and deficit	$..... ....
		Loss and depreciation of material as per Journal entry 16.	
		Cash	$..... ....
		For remittances by Superintendent to the treasurer as per treasurer's Cash Book.	
Total	$.....	Total	$..... ....

The difference in the totals equals the balance of the Treasurer's account with the Superintendent.

3

HOSPITAL EARNINGS ACCOUNT

Dr.		Cr.	
Total of period to date	$.....	Total of period to date	$..... ....
Surplus and deficit	$.....	Treasurer's account with Superintendent as shown by Superintendent's report per Journal entry 14.	
For amount transferred as per Journal entry 17.			
Total	$.....	Total	$..... ....

Account will balance monthly.

4

ACCOUNTS RECEIVABLE

Dr.		Cr.	
Total of period	$.....	Total of period	$..... ....
Amounts due and unpaid as per Journal entry 18.		Cash	$..... ....
		As per Cash Book, surplus and deficit, Journal entry 12, for uncollectable accounts receivable charged off during the month.	
Total	$.....	Total	$..... ....

5

STOCKS

Dr.		Cr.	
Total of period to date	$.....	Total of period to date	$..... ....
Cash	$.....	Cash	$..... ....
Stocks purchased during the month, not including accrued interest as per Cash Book.		Stocks sold during month entered from Cash Book	$..... ....
Donations restricted	$.....	Surplus and deficit	$..... ....
Value of stocks donated, not including accrued interest, as per Journal entry 3.		Loss or depreciation charged off during month as per Journal entry 11.	
Donations, unrestricted	$.....		
Value of stocks donated, not including interest, as per Journal entry 1.			
Surplus and deficit	$.....		
Profit on stocks sold during month as per Journal entry 10.			
Total	$.....	Total	$..... ....

The bonds account and mortgage receivable account should be handled in about this same manner.

6

INTEREST PURCHASED ACCOUNT

Dr.		Cr.	
Total of period	$.....	Total of period	$..... ....
Cash	$.....	Cash	$..... ....
Accrued interest purchased during month with stocks, bonds, and mortgages as per Cash Book.		Collections as per Cash Book.	
Total	$.....	Total	$..... ....

7

PREPAID INSURANCE

Dr.		Cr.	
Total of period	$.....	Total of period	$..... ....
Cash	$.....	Superintendent's account with Treasurer	$..... ....
As per Treasurer's Cash Book.		For insurance charged to current expense previously paid as per Treasurer's Cash Book.	
Total	$.....	Total	$..... ....

The difference of the totals equals prepaid insurance.

8

CAPITAL ACCOUNT (HOSPITAL PROPERTY AND EQUIPMENT)

Dr.		Cr.	
Land and buildings	$.....	Total of previous months	$..... ....
Equipment	$.....	Land and buildings	$..... ....
Machinery and tools	$.....	Equipment	$..... ....
Furniture and fixtures	$.....	Machinery and tools	$..... ....
Apparatus and instruments	$.....	Furniture and fixtures	$..... ....
For book value of sales as per Journal entry 19.		Apparatus and instruments	$..... ....
Land and buildings	$.....	For capital expenditures as per Voucher Register and Journal entry 6.	
Equipment	$.....	Land and buildings	$..... ....
Machinery and tools	$.....	Equipment	$..... ....
Furniture and fixtures	$.....	Machinery and tools	$..... ....
Apparatus and instruments	$.....	Furniture and fixtures	$..... ....
For loss by fire as per Journal entry 9.		Apparatus and instruments	$..... ....
		For value of gifts capitalized as per Journal entry 7.	
Total	$.....	Total	$..... ....

The difference in the totals of this account equals the capital.

This account equals the book of hospital property and equipment. It is not a part of the surplus and deficit account, and cannot be so considered. Surplus consists only of money or its equivalent that can be used to carry on the business.

9

ENDOWED BED FUND

Dr.		Cr.	
Total of previous months	$.....	Total of previous months	$..... ....
Surplus and deficit	$.....	Donations	$..... ....
Amount charged off during the month owing to cessation of liability of hospital as per Journal entry 4.		For donations to this fund as per Journal entry 3.	
		Donations as per Treasurer's Cash Book	$..... ....
		Partly Endowed Bed Fund	$..... ....
		Endowments completed and transfer made as per Journal entry 5.	
Total	$.....	Total	$..... ....

Balance of account equals Endowed Bed Fund.

10

PARTLY ENDOWED BED FUND

Dr.		Cr.	
Total to date	$.....	Total to date	$..... ....
Endowed Bed Fund	$.....	Cash, as per Cash Book	$..... ....
Amounts transferred as per Journal entry 5.			
Surplus and deficit	$.....		
Amoun charged off owing to cessation of liability as per Journal entry 4.			
Total	$.....	Total	$..... ....

Balance of account equals Partly Endowed Bed Fund.

This account is used for the endowment of beds by installments, and on completion of these are transferred to the Endowed Bed Account. Donations to this fund may be invested and the income used as a part of the General Endowment Fund until the time of transfer, when the income will be shown under the income from investments held in Endowed Bed Fund.

11

GENERAL ENDOWMENT FUND

Dr.		Cr.	
Total to date	$.....	Total to date	$..... ....
Surplus and deficit	$.....	Cash	$..... ....
Amount transferred to this account owing to cessation of liabil ty as per Journal entry 4.		As per Treasurer's Cash Book.	
		Mortgages receivable	$..... ....
		Stocks	$..... ....
		Bonds	$..... ....
		Or other investment securities as per Journal entry 3.	
Total	$.....	Total	$..... ....

Difference in totals equals General Endowment Fund.

12

SPECIAL FUND (ANY)

Dr.		Cr.	
Total to date	$.....	Total to date	$..... ....
Surplus and deficit	$.....	Cash	$..... ....
Appropriations to meet expenses chargeable to this und as per Superintendent's report, as per Journal entry 17.		Income from investments held in this fund as per Cash Book.	
		Mortgages	$..... ....
		Stocks	$..... ....
		Bonds or other investments given to this fund during the month as per Journal entry 4.	
Total	$.....	Total	$..... ....

Balance equals amount of the special fund.

The General Ledger accounts with all Funds show only their extent. Increases and decreases, except where the income is added to the principal, are charged to surplus and deficit.

In the Income Ledger should appear an account with each fund and an account with each individual security of each fund. The total of the income is then posted to the fund income account, together with taxes or other current expenses which decreased the income of this fund. The balance of the account is then transferred by Journal entry No. 17 to the surplus and Deficit Account.

13

LOAN AND NOTES PAYABLE

Dr.		Cr.	
Total to date	$.....	Total to date	$..... ....
Cash	$.....	Cash	$..... ....
Loans paid as per Cash Book.		Loans accrued as per Cash Book.	
Loans and Notes payable	$.....	Loans and notes payable	$..... ....
Renewals as per Journal entry 13.		Renewals as per Journal entry 13.	
Total	$.....	Total	$..... ....

Balance of account equals loans and notes payable. Mortgages payable may be treated in this manner.

14

SURPLUS AND DEFICIT ACCOUNT

Dr.		Cr.	
Totals	$.....	Tota's	$..... ....
Superintendent's account with Treasurer	$.....	Income	$..... ....
Current expense as per Journal entry 16.		Current revenue	$..... ....
Superintendent's account with Treasurer	$.....	For month as per Journal entry 17.	
Capital expenditures as per Journal entry 16	$.....	Bonds	$..... ....
Superintendent's accounts receivable, as per Journal entry 16	$.....	Stocks	$..... ....
		Other investments	$..... ....
Uncollectable accounts receivable charged off during month	$.....	Profit on sale of such investments	$..... ....
As per Journal entry 16.		As per Journal entry 10.	
Accounts receivable	$.....	Hospital properties	$..... ....
Treasurer's accounts receivable	$.....	Profit on sales of above as per Journal entry 8.	
Charged off as uncollectable during month as per Journal entry 12.		Endowed Bed Fund.	
Material	$.....	General Endowment Fund	$..... ....
Loss or depreciation.		Special Funds	$..... ....
Surplus and deficit	$.....	Amount charged off during month owing to cessation of liability of hospital account	
Loss or depreciation	$.....	with Superintendent	$..... ....
Charged off investment accounts as per Journal entry 11.		Surplus by inventory	$..... ....
		As per Journal entry 15.	
		Cash as per Cash Book for damages by fire, etc	$..... ....
		Funds	$..... ....
		Amount charged off owing to cessation of liability as per Journal entry 4.	
Total	$.....	Total	$..... ....

Balance equals surplus or deficit. This account shows the standing of the hospital in regard to working capital. A deficit means that the management must work to the end that the reserve funds will not be attacked. A surplus will show the amount of working capital which the hospital has on hand.

The Ledger accounts, as a whole, should be balanced at the end of each fiscal year and the balances carried forward. These balances must agree with the Balance Sheet.

Accounts should also be ruled off when at any time they happen to balance during the year, to save additions.

15

MORTGAGES RECEIVABLE

Dr.		Cr.	
Total of previous months	$.....	Total of previous months	$..... ....
Mortgages receivable	$.....	Mortgages receivable	$..... ....
For renewals as per Journal entry 20.		For renewals as per Journal entry 20.	
Donations and legacies	$.....	Surplus and deficit	$..... ....
For value of same, not including accrued interest given to the hospital during the month, as per Journal entry 1.		For loss or depreciations charged off as per Journal entry 11.	
Capital account	$.....	Cash	$..... ....
Investment account concerned	$.....	For money received in payment of mortgages as per Treasurer's Cash Book.	
For value of same given in part or full payment for property sold as per Journal entry 2.			
Endowment funds	$.....		
Special funds	$.....		
For value of mortgages donated to these funds during the months as per Journal entry 3.			
Total	$.....	Total	$..... ....

The difference in the totals equals mortgages receivable.

16

DONATIONS AND LEGACIES UNRESTRICTED

Dr.		Cr.	
Total of previous months	$.....	Total of previous months	$..... ....
Surplus and deficit	$.....	Cash	$..... ....
Amount of unrestricted donations transferred as per Journal entry 17.		Amount of donations as per Cash Book.	
		Mortgages receivable	$..... ....
		Bonds	$..... ....
		Stocks	$..... ....
		Other investments	$..... ....
		For amounts of these donated to hospital as per Journal entry 1.	
Total	$.....	Total	$..... ....

This account should be balanced monthly.

17

INCOME

Income From Investments Held in General Endowment Fund

Dr.		Cr.	
Total of previous months	$.....	Total of previous months	$..... ....
Taxes	$.....	Cash	$..... ....
Or other than petty current expenses charged against income from these investments as per Treasurer's Cash Book.		For receipts on account of investments held in this fund as per Treasurer's Cash Book.	
Surplus and deficit	$.....	Accounts receivable	$..... ....
Net income from these investments transferred to surplus and deficit account as per Journal entry 17.		Income due and unpaid on investments held in this fund as per Journal entry 18.	
Total	$.....	Total	$..... ....

This account will balance monthly.

18

DEPRECIATION RESERVE

Buildings

Dr.		Cr.	
Total of previous months	$.....	Total of previous months	$..... ....
Buildings	$.....	Surplus and deficit account	$..... ....
For depreciation on such as per Journal entry 10.		For cost of repairs as shown by voucher register and Journal entry 16.	
Total	$.....	Total	$..... ....

The difference in the totals of this account equals the reserve for depreciation on buildings. Other depreciation accounts are handled in this same manner.

A surplus and deficit statement (Form 26) is shown and also a form of the Treasurer's Trial Balance and Balance Sheet. It is the best practice to make a full statement of all operating accounts each month.

Before explaining the Trial Balance, the Income Ledger and Endowed Bed Ledger will be described.

INCOME LEDGER AND ENDOWED BED LEDGERS

Two subsidiary books of the General Ledger are kept—namely, the Income Ledger books and Endowed Bed Ledger, the first of which is only a record and not a part of the General Ledger, while the latter closes into its proper account in the General Ledger.

ENDOWED BED LEDGER

The Treasurer should have a separate ledger for Endowed Beds, and various accounts in this book headed by the person or persons, or organization, endowing a bed.

Example No. 1 for full endowment, example No. 2 for partial endowment, and example No. 3 for transfers to the general fund are shown below:

ENDOWED BEDS

Endowed by	No.
Duration	Name
Nominor	Address
Successor	Address
Remarks	

Dr.			Cr.	
Amount	Folio	Item	Folio	Amount
$.....	.....	Cash.....	.....	$..... ....
		As per Cash Book.		
....	.....	Partly Endowed Bed Fund, Journal entry 5.....	.....	....
....	.....	Surplus and Deficit.....	.....	....
		Charged off owing to cessation of liability of hospital as per Journal entry 14.		
$.....				$..... ....

If this last entry is made, the account will balance and is closed. If not, the difference in the totals equals the amount of the account.

[To be continued]

PROVISION FOR INSANE IN NEW JERSEY STATE INSTITUTIONS

Special Committee of Hospital Superintendents Submits Comprehensive Program to Board of Charities and Corrections—Dangers of Congestion Pointed Out

A special committee of prominent New Jersey, Pennsylvania, and New York hospital superintendents recently made a thorough inspection of the Trenton State Hospital for the purpose of ascertaining to what extent the hospital is equipped for the care and treatment of the increasing insane population in the two New Jersey state institutions at Trenton and Morris Plains. The committee was accompanied by Dr. Henry A. Cotton, superintendent of the Trenton Hospital, who pointed out the lack of present facilities for the care of the rapidly increasing number of patients.

Immediately following the inspection a meeting was held in the hospital, at which the positive dangers resulting from congestion were pointed out. The committee then decided on the presentation to the State Board of Charities and Corrections of the following comprehensive program for the care of insane in both institutions in the order of urgency to afford proper relief. This program provides for:

1. Adequate hospital facilities for the care and treatment of the acute, curable cases.
2. Farm, colony, and industrial facilities for the quiet, able-bodied type of patient who is capable of doing productive work, inside or outside the institution.
3. Construction of a psychopathic hospital to serve as a central research and treatment laboratory, to be erected in a large city readily accessible to those parts of the state most densely populated.

In the case of the last-named recommendation, it was suggested that the psychopathic hospital be patterned partly after the New York State Psychiatric Institute on Ward's Island and the Boston Psychopathic Hospital, which are not only centers of research for the various state institutions, but also centers of training for the medical and surgical staffs of the state and county hospitals and are available to the medical profession generally for the treatment of private patients, thus saving their respective states thousands of dollars annually.

The question of providing adequate care and treatment for the insane is especially important at this time, inasmuch as the demobilization of troops brings with it the report from medical officers attached to the War Department that there are 56,000 men in the United States Army who are mentally deranged as a result of shell shock, crowded barrack conditions, difficult marches, and strenuous trench life.

CONFERENCE OF INDUSTRIAL PHYSICIANS AND SURGEONS

Problem of Physical Reconstruction and Industrial Rehabilitation of War and Industrial Cripples Considered—Fitting Individuals for Remunerative Occupations

On December 6, 1918, there was held at the Bellevue-Stratford Hotel, Philadelphia, the Seventh Conference of Industrial Physicians and Surgeons under the direction of the Pennsylvania Department of Labor and Industry.

The entire program was devoted to the problem of the physical reconstruction and industrial rehabilitation of the war and industrial cripples. Papers were presented by Mr. Harry A. Mackey, chairman of the Pennsylvania Workmen's Compensation Board, Mr. C. B. Auel of the Westinghouse Electric and Manufacturing Company, Dr. Alfred Stengel of the University of Pennsylvania, Lieutenant-Colonel Harry E. Mock of the Surgeon General's office, Major R. Tait McKenzie of the University of Pennsylvania, Mr. H. L. Brunson of the Federal Board for Vocational Education, and Mr. Douglas C. McMurtrie of the Red Cross Institute for Crippled and Disabled Men.

So far industry has paid for industrial accidents through the various state compensation laws. To this aid there should be added, as a function of the state, the provision of mechanical aids which will fit the individual to take up a remunerative occupation. Following this the state should train the reconstructed man to follow the occupation for which he is best suited. After the training the state should place him in a suitable occupation.

The Pennsylvania Department of Labor and Industry more than a year ago made a survey of the industries of the state with a view to ascertaining how many cripples could be placed in positions. At last account there are more than 47,000 openings in Pennsylvania industries for persons with various disabilities. A full account of this work may be found in Bulletin Number 2, Volume 5, of the Pennsylvania Department of Labor and Industry.

The importance of the prevention of disability through industrial disease was presented, and emphasis was laid upon the necessity of physical examination in fitting the worker to his job, upon the avoidance of fatigue, of monotony, of exposure to extremes of temperature, of overcrowding, and upon the minimizing of the evil effects of trade poisons.

Copies of the proceedings of this conference may be obtained by addressing the chairman of the conference, Dr. Francis D. Patterson, chief, Division of Hygiene and Engineering, Department of Labor and Industry, Third and North streets, Harrisburg, Pa.

FROM OUR FIELD EDITORS' NOTEBOOKS

Beautiful Tudor Building and Lovely Surroundings Devoted to Care of Blind—A Community Hospital Which Furnishes Excellent Laboratory Facilities—Economy of Construction Featured in a Memorial Building

Evergreen (U. S. Army General Hospital No. 7), Baltimore

Anything less typical of a hospital, and especially a military hospital, than this remarkable institution would be hard to imagine. I visited it on one of those days early last autumn when summer still lingered in the air, and it was easy to see what a delight the gardens and park-like

Fig. 1. "Kernwood," which serves as headquarters for the military staff and residence of blinded officers at Evergreen.

grounds must be in their prime. Evergreen, Jr., formerly the home of Mrs. T. Harrison Garrett, and now the home of the enlisted blind men, is a beautiful Tudor building, expressive of dignified leisure, culture, and luxury. "Why devote all these lovely surroundings to the care of blind men?" is the very natural question often asked. The answer given is that the minds of the blind are very susceptible to the influence of that beauty which their eyes may no longer perceive. I suspect that there is, in addition, another reason. The education of the blind man to meet the changed conditions of his lot often means the education of his family as well; the family must be won over to confidence in the kindly wisdom guiding the blind member's education if they are to cooperate with it or even permit it to continue. The very aspect of this beautiful residence, sedate and stately yet friendly and homelike, is well adapted to soothe the harrowed feelings and restore the confidence of the seeing mother or wife, sister or brother, who, perhaps, feels the blind man's misfortune more keenly than he does himself.

Col. James T. Bordley, director of the staff of the institute, tells of a mother who wired him, "Send my boy home. No science and no money can do for him what a mother's love can do." Colonel Bordley did not stop to argue with that mother; he took a train for her home and brought her back to Evergreen on the next train. (The Red Cross, by the way, maintains a house near Evergreen expressly for the purpose of entertaining members of patients' families whom it may be necessary, for the patients' welfare to bring there.) He showed her not only the house with its cheer and comfort and luxury, but the Elizabethan garden, the swimming pool, the bowling alley, the dancing pavilion, the gymnastic hall, and the Red Cross Institute where are held classes in typewriting and in various vocations. That mother went away convinced that Uncle Sam, in the person of Colonel Bordley and his staff, knew what was best for her boy and was doing it.

On page 206 of THE MODERN HOSPITAL a group of pictures shows more clearly than words can tell just what the workers at Evergreen are able to do for our sightless men.

"Tell the readers of THE MODERN HOSPITAL," said Major Ardan, the commanding officer of Base Hospital No. 7, to me, "that the problem of the rehabilitation of the blind is a moral problem. The blind man needs to be helped, but he needs to be helped to stand on his own feet—to feel that he is still a man among men."

Decatur and Macon County Hospital

One of the outstanding facts that confront a visitor to a large number of institutions in various parts of the continent, is the absolute lack, in many of them, of either laboratory or x-ray facilities. Even where this equipment is installed, the lack of competent personnel for the interpretation of the work is often apparent in a great number of large institutions, and still more frequently in small community hospitals.

The status of affairs is undoubtedly due, primarily, to a lack of understanding on the part of administrative boards regarding the necessity of this equipment, and, secondarily, to an inability to meet the financial outlay involved. As a result of the lack of these facilities, however, physicians using such hospitals get in the habit of relying entirely on their physical findings, since they do not have the advantages of the supplemental information that should be furnished by the well-rounded-out laboratory.

All of these things being true, it is rather refreshing to find a small community hospital that has fully accepted

Fig. 2. Decatur and Macon County Hospital.

its obligation and has worked out a means of financing that not only permits of a better medical performance but is also a source of a little revenue to the institution itself. Such an institution is the Decatur and Macon County Hospital at Decatur, Ill., of which Miss R. Helen Cleland is superintendent.

While this institution has not arrived at the stage of ideal laboratory practice, yet it is so far in advance of the average institution of its size that a statement of its

performance would seem to be of interest as an indication of what can be done with a proper understanding of the needs of a hospital and an effort to furnish these needs.

The Decatur and Macon County Hospital was opened on January 1, 1916. The hospital was built with a capacity of 100 beds, but, because part of it has had to be used for nurses until the nurses' home can be built, the present capacity is but sixty-five beds. A new addition of more than seventy-five beds is now in course of construction, which will in all probability be ready for occupancy early in the year.

The hospital is operated entirely from the revenue derived from pay and part-pay patients, together with that derived from Macon County and from the city of Decatur. A perusal of the annual report indicates that approximately 5 percent of the work done is for absolutely free patients.

The privileges of the hospital are open to all recognized physicians. It admits every character of cases except infectious diseases. While pathological work is not done as a matter of routine on operative specimens, the laboratory report shows that the laboratory is used quite extensively for this character of work, but more especially for bacteriological work. In one year a total of over two thousand various examinations were made, which, it can be readily seen, is rather a large number for an institution of this size. The submitting of specimens by doctors for other than patients of the institution is encouraged, and the community has responded very remarkably in this respect. The institutional laboratory is in charge of a well trained, full-time technician and has the benefit of advice from a well developed laboratory man in the community.

The outstanding point is that this institution had its inception in a vision of what would be needed and a belief that, with the furnishing of these facilities, the community would respond in sufficient volume to justify the financial outlay.

That the development is financially a success is evidenced by the annual report, which shows a credit on the proper side of the ledger of approximately $300 for a

Fig. 3. Reception hall of Decatur and Macon County Hospital.

year's performance. However, this financial gain is of but passing moment when taken into consideration with the very material increase in the efficiency of the medical work done, as this work can not be done in these days without the supplemental facilities furnished by a well-equipped laboratory.

Decatur and Macon County Hospital is to be congratulated upon its performance, and it is hoped that its example can be followed to a lesser or greater degree in a great many communities now entirely devoid of laboratory facilities.

The Frederick Wilcox Chapin Memorial Building of the Springfield Hospital, Springfield, Mass.

The actual work on this building was begun in the early spring of 1914, and the building was dedicated on February 11, 1915. This memorial to Dr. Frederick Wilcox Chapin, a trustee of the Springfield Hospital, is a substantial, straightforward structure with no needless decoration. It is built of steel and brick with stone trimmings. Its walls are concrete, its partitions gypsum block, and it is throughout as fireproof as modern building methods can make it.

On each of the first and second floors there are fourteen private rooms for patients, and on the third floor, eighteen rooms. Some have bath and toilet, and some toilets only,

Fig. 4. Frederick Wilcox Chapin Memorial Building.

but all have clothes closets. On each floor, of course, there are general bath and toilet facilities, while adjoining the elevator, which is located at the front end of the building, are the utility rooms and diet kitchens. The general bath and toilet, the maid's service closet, the doctor's sink, and the linen closet, on each floor, are very conveniently and compactly placed as a single unit on one side near the center of the building. At the end of each of the three floors are sun rooms, which, while light and pleasant, should have been built with a much larger floor area, so as to admit wheeling a goodly number of the patients into the open air. On the first floor is a very attractive reception room where visitors and incoming patients receive a friendly first impression of the place.

In the basement are the kitchen, pantries, storerooms, maids' rooms, and a completely equipped pathological laboratory. Opening from the laboratory is a small autopsy room.

The operating pavilion and x-ray department occupy the fourth floor. Here are two modern operating rooms, two etherizing rooms, surgeons' wash room, utility room, nurses' work room, a sterilizing room, locker rooms, toilet rooms, and an office for surgeons. In the x-ray department are the main operating room, switch room, dark room, and a small waiting room.

Automatic phones connect the service room and halls, and the majority of the patients' rooms have a city phone. Nearly all of the electric lighting is by the indirect system.

One of the interesting features of this building is that it is one of a group of six buildings which will be similar in design and which constitute part of a comprehensive plan for the future growth of the hospital, worked out and submitted in March, 1912, for the purpose of insuring the utmost efficiency of operation and economy of construction to the institution throughout its continued development.

The MODERN HOSPITAL

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Hospital Policy in Relation to Health Insurance

What is the policy of the hospitals of the country toward compulsory sickness or health insurance? If by policy we mean attitude, the hospitals' policy is one of friendliness, due in part to the belief that compulsory health insurance will fortify the hospitals financially. If, however, by policy we mean a set of measures or a system of administration designed for the protection or promotion of the interests of the hospitals, the hospitals have no policy, or at any rate, have announced no policy in relation to health insurance.

It is a fair assumption that the country is moving in the direction of compulsory sickness or health insurance. Reasons for this assumption are (1) the force of the example of England and of eight other European countries with whose social insurance laws the people of this country are rapidly becoming familiar, (2) the general favor with which the proposed legislation is regarded by the extremely active and influential body of social workers in the United States, (3) the appointment of no less than eight state commissions to investigate health and other forms of social insurance, (4) the support of the movement by numerous public health administrators and experts, (5) the gradual but irresistible swing of organized labor from opposition to support, (6) the present sympathetic attitude of the leading political parties toward the demands of labor, (7) the willingness of labor, officially expressed through state labor federations, to assume half the cost of the proposed insurance, and (8) the readiness of various state legislatures to act upon social reform measures which do not threaten to add to the troubles of the overburdened taxpayer and, incidentally, of the legislator. I say nothing here of the need of health insurance; that is another story.

Several years ago the American Medical Association, without officially declaring itself to be for or against compulsory health insurance, thought it wise to lay down certain minimum requirements, the incorporation of which in any bill on health insurance was demanded on behalf of the medical profession. These minimum requirements, which are quoted from memory, were (1) adequate representation of the medical profession on administrative and advisory bodies concerned with the administration of the law, (2) free choice of physician by the persons insured, (3) payment of physicians in proportion to the services rendered, rather than on a flat capitation basis, and (4) separation of the function of treating disease from the function of certifying disability and the right to cash benefits. Should not the hospitals now approach the subject in the same practical way and tell those who are engaged in framing the proposed laws just what is required in order that the hospitals may not unduly suffer and, what is more important, in order that the worker may be assured of his just dues? Is not the worker interested in the reasonable maintenance of hospitals and in the protection of hard-won hospital standards?

Effective hospital service demands, among other things, sanitary buildings, an adequate nursing staff, and a sufficient food supply. The ward patient is not expected today to defray the whole cost of these fundamental necessities, but according to his circumstances, he may pay part of their cost or none; whatever remains to be paid is charged up against either some local governmental authority or against private philanthropy. Such is the prevailing practice. Now, however, comes the worker demanding hosptal care as a right and not as charity, and proposing that mutual insurance funds created under a health insurance law and contributed by employers and employees, shall bear the cost. And immediately a whole series of questions arise to be answered.

How much should the funds be asked to pay for hospital maintenance? By what means and according to what standards shall the value of hospital service be appraised? If an individual patient prefers a higher grade of service than that

which is fixed by the fund as appropriate for the great body of insured workers, shall he be permitted to obtain such higher grade of service, paying the difference in cost from his own pocket? Should the funds seek to make contracts with the cheapest hospitals or with the best? Should hospitals be encouraged or even permitted to bid against each other, or should they become associated for purposes of collective bargaining? Should there be in each state or locality a basic rate for standard service with an extra allowance for service of a special or superior character, or should the rate of payment for maintenance be invariable? Should the insured workers have a right of free choice among hospitals similar to the right of free choice among physicians? Is it desirable that hospitals as well as physicians be represented on administrative and advisory bodies, and, if so, in what manner and by what method should the representatives of hospitals be selected? Should the hospitals in the several localities organize for the purpose of electing delegates to administrative and advisory councils? Is it not obvious that no sickness insurance law can be satisfactorily administered which disregards these questions?

In the preceding paragraph hospital service was mentioned as if it were a thing apart from medical service. Such service as the hospital furnishes is given side by side with and partly under the orders of the physician. The service of the closed or staff hospital — the hospital in which medical practice is limited to designated members of a fixed or closed organization—may even include the professional work of the physician; to the open hospital, however, the physician brings his patient, or the patient brings his physician, as the case may be. Let us consider some of possible relations of hospital, physician, patient, and public, under compulsory health insurance.

At a recent conference on the question of hospital care under health insurance, *the physicians present advised the representatives of labor to insist upon the free choice of physician always—in hospitals as well as out of them.* The workers were told that the staff hospital is a monopoly which should be destroyed and that health insurance presents an easy means to this end. Now, while staff hospital organization presents certain disadvantages to the physicians who are not on the staff, it has a community value which must be recognized. I am ready to concede that the worker should have the right to choose his physician, and that, when he needs hospital care, a hospital should be open to him in which he may be treated by the physician of his choice. If, however, all hospitals become open hospitals, the community will suffer, for the art of medicine must be taught to the physicians of the future, if medicine is to be practiced intelligently hereafter, and the open hospital is not the one in which clinical teaching can profitably be done. For purposes of research as well as for teaching purposes, superior facilities and opportunities should be available to the best minds in the medical profession. This is required, not in order that certain individuals or groups may profit professionally or financially, but in order that the practice of medicine may be improved for the benefit of mankind. *The open hospital may be desirable for the attainment of individual ends, but the staff hospital is a necessity for the attainment of social ends; and both are compatible with justice.*

If under compulsory health insurance, a patient begins treatment at home with a physician of his own choice and if the patient subsequently enters a hospital with the object of continuing treatment under the same physician, the simplest financial arrangement would be for the "fund" to continue paying the physician for his service in the hospital at the rate provided elsewhere; a separate payment would then be due the hospital to cover the cost of maintenance. In some instances, however, the change from domiciliary to hospital care will be for the express purpose of obtaining the benefits of medical treatment in a staff hospital, and a change of physicians may be sought by the patient himself or may even be recommended by the physician who was originally in charge of the case.

Some of the health insurance bills which are now under consideration do not definitely say that contracts with hospitals are to be for maintenance only; under the provisions of these proposed laws contracts with hospitals might be made to include both medical attendance and incidental hospital maintenance. This opens the door to the possible adoption of one rate of compensation for domiciliary treatment and another for hospital treatment. If hospitals are to be permitted to make contracts inclusive of medical treatment, should medical treatment be contracted for as something apart from maintenance, or should a lump sum be paid to the hospital, to be thereafter apportioned between the hospital and the members of its staff? If hospitals are permitted to contract for medical treatment, there will develop at once a divergence of interest between physicians connected with staff hospitals and physicians practicing elsewhere, and disputes between the two groups may easily arise. In addition, the division of fees might become a bone of contention between hospitals and the members of their staffs. Would it not be far better to separate the two ele-

ments of service from the beginning? Should not the health insurance law itself make separate and distinct provision for medical treatment and hospital service? At all events, this is a fundamental question which should be studied by hospitals and physicians before binding legislation is enacted.

S. S. GOLDWATER.

Marine Hospitals of the United States Public Health Service

If plans now under consideration are approved by Congress and an appropriation is forthcoming, all soldiers, sailors, marines, and others discharged from military service with disease or injuries contracted while in service will find excellent hospital and sanatorium care in the marine hospitals of the United States Public Health Service. This arrangement follows a request of the director of the War Risk Insurance Bureau.

According to the provisions of the war risk insurance act, sickness or injury incurred while in military service and not caused by wilful misconduct, entitled the person not only to governmental hospital care free, but also to a disability allowance which varies according to the extent of the disability and the size of the disabled man's family. It is further provided that the government's responsibility to the men of the military forces began when the men were accepted for military service by the draft boards.

Just how many men will require hospital or sanatorium care under the provisions of the war risk insurance act is impossible to determine at this time. Already, with demobilization just begun, the War Risk Insurance Bureau has under medical treatment 1,724 beneficiaries. Within a short time hospital and sanatorium care will have to be provided for a considerable proportion of the 24,500 soldiers, sailors, and marines discharged from military service because of tuberculosis and for the 50,000 cases of psychoneurosis, epilepsy, and other nervous and mental disorders reported among the military forces up to December 1, 1918.

The suggestion has been made that some of the one hundred and fifty small army posts scattered throughout the United States, especially in the West, be converted into hospitals for beneficiaries of the war risk insurance act. It is not likely that this will meet with the approval of the beneficiaries themselves, for these posts are usually remotely located and dreary. Besides, most of the boys who have done their bit are anxious to get away from army surroundings and they much prefer to be in hospitals located near their homes or near a larger city.

The plan now before Congress would enable the United States Public Health Service to enlarge the capacity of twenty-two marine hospitals from 1,689 to 5,208 beds, and, in addition, provide for 2,459 beds in new hospitals and sanatoriums to be built in various parts of the country. Already there are under consideration sites for tuberculosis sanatoriums in New England, in the mountains of Kentucky, and in the far West. The public Health Service now maintains a tuberculosis sanatorium at New Mexico.

The plan of having the United States Public Health Service undertake the hospital and sanatorium care of the beneficiaries of the War Risk Insurance Bureau possesses a number of advantages. It would reduce to a minimum the outlay for administration overhead construction and administration; then the favorable location, near larger cities, of most of the existing marine hospitals should be considered; there also would be an undoubted advantage in having the matter handled by a hospital organization which has had long practical experience and has operated its service successfully; finally both the War Risk Insurance Bureau and the Public Health Service are parts of the Treasury Department, a fact which would undoubtedly lead to the closest possible coordination of activities.

A New Era for the Handicapped

The world really does move, and its movement, on the whole, is in a forward direction. One may sometimes doubt it, but a group of articles like those which we publish this month by Sir Arthur Pearson, the noted blind publisher and leader in the education of the blind, Mr. Douglas C. McMurtrie, director of the Red Cross Institute for Crippled and Disabled Men, and Dr. J. O. Cobb, senior surgeon in command at the U. S. Marine Hospital, Chicago, must dispel pessimism on the subject. In its attitude toward the crippled and disabled, the world has made progress. Mr. McMurtrie shows with what cruel derision and sardonic suspicion the middle ages regarded the crippled and disabled; Sir Arthur Pearson and Dr. Cobb explain some of the steps which are now being taken to make the handicapped man happy and useful to the world.

The callous neglect of the past has been not merely inhuman but wasteful. The war, while it has quickened our sense of duty toward those who have suffered in it, has already taught us to see the extravagant stupidity in allowing handicapped men to eat their hearts out in idleness, a misery to themselves and a burden to the world, when a little help would put self-respecting independence within their reach. Not merely the dis-

abled soldier or sailor of this war, but the handicapped civilian of all future times as well, and still more the public is going to profit by this new light on the problem of the disabled. This gain to the industrial world is very well illustrated by a story which Mr. McMurtrie tells in another paper.[1]

A worker in Massachusetts was permanently disabled by an accident to his hand in the course of his work. Under the law he was awarded a compensation of ten dollars a week, to cease after a total maximum of four thousand dollars had been paid. After the compensation had run for nearly a year, the attention of a new official was directed toward the case. Finding the man capable of rehabilitation for self-support, the insurance company official put before him the proposition of reeducation at the company's expense. The arrangement, he was frankly told, would be to the company's advantage, but it would also be to his advantage, too, inasmuch as ability to earn a good livelihood would be far preferable to an unearned income of ten dollars a week. The injured man accepted the offer, and the insurance company sent him to the Red Cross Institute for Crippled and Disabled Men in New York, where he took an eight-weeks' course in oxyacetylene cutting and welding. While he was taking the course the company paid him, not the ten dollars a week required by law, but forty dollars a week, twenty to him in New York and twenty to his wife at home; they also defrayed his traveling expense both ways. He is now making twice as much as he had ever earned before the accident.

Thus, says Mr. McMurtrie, "in the whole transaction every party at interest was benefited. The man was advantaged in that his general living standard was distinctly raised, and the necessity of working for his living could not be considered as a hardship. The company paid less than five hundred dollars for his rehabilitation, and this expense, in conjunction with the five hundred dollars already paid in weekly compensation during the first year of idleness, made a total for the case of one thousand dollars. They were thus enabled to charge three thousand dollars of profit to the account of profit and loss. Had the course of training been earlier begun, there would have been saved five hundred dollars more. The community was infinitely the gainer in that the man, formerly an unproductive consumer, became a useful producer instead. The community further gained in the elimination of the disabled man from the category of a prospective dependent, because while compensation might have taken care of him in a very insufficient way during the period the payments ran, there would have come a time when compensation ceased, and then he would have been in desperate economic status indeed—confirmed in habits of idleness, untrained for skilled work, and without any source of support."

As Mr. McMurtrie suggests, there need be no cost in the rehabilitation of the industrial cripple, but rather a great economic and social saving. Further, accident cripples not under protection of workmen's compensation laws, congenital cripples, and disease cripples, are in need of legislative assistance, not only for their own sakes but also because "the elimination of dependency due to physical handicap will lift a colossal burden from the agencies of philanthropic relief." It is too soon to estimate how great a gain may be made by such means, but that there is tremendous gain to be made can not be doubted.

[1] McMurtrie, Douglas C.: Future Policy in Dealing with Disabled Civilians; Some Conclusions from Experience, Med. Rec., Jan. 25, 1919, p. 142.

Some Changes in the Editorial Board

The list of names at the head of the editorial page this month contains some changes—two representing very welcome accessions and one a much-regretted loss.

For some time THE MODERN HOSPITAL has felt the need of representation in Canada and on the Pacific coast. This expansion is due not only to this magazine's continental—if not international—position as the organ of hospital people, but also to the ever-increasing importance of hospital interests in the north and the west of the American continent. We have been especially fortunate in securing the cooperation of Mr. H. E. Webster, superintendent of Royal Victoria Hospital, Montreal, and of Dr. R. G. Brodrick, superintendent of San Francisco Hospital, San Francisco. With the aid of these two able administrators, we believe, THE MODERN HOSPITAL can not fail to become even more valuable and useful to readers.

On the other hand, it is with great regret that we have to record the severance of Dr. Hornsby's connection with the editorial staff. It had been hoped that when his important work for the government was finished Dr. Hornsby would be able to resume his editorial duties. He is, however, undertaking important work for the American College of Surgeons, which will demand all his time and attention for some weeks, after which period, under the firm name of "John A. Hornsby and Son, Consultants in Hospital and Health Problems," he, assisted by his son, will serve the hospital field as a consultant on plans, reorganization of hospitals along economic lines, staff

organizations, and other problems. What the hospital world loses through Dr. Hornsby's relinquishment of his editorial post, it will gain through his new activities. The need of expert advice on hospital matters is constant and widespread, and no one is better qualified than he is to supply it. We are sure that we speak for the entire hospital world when we say that the universal good wishes which will follow Dr. Hornsby into his new field are inspired not only by admiration of his brilliant record in the past (a part of which is briefly reviewed in another editorial) but by sincere affection and real gratitude for what he has done toward the advancement of the hospital profession.

An Exceptionally Beautiful and Fitting Memorial

A very interesting architectural study is presented by the Benjamin Stickney Cable Memorial Hospital, described by Mr. Edward F. Stevens on page 157 of this issue. Probably the first impression conveyed by the views is that of the exceptional beauty and dignity of the architectural scheme. The treatment of the operating room window, in particular, is unique, and the wide terraces and airing balconies make the most of the natural advantages offered by the location.

The plans evidence a careful and skillful adaptation of means to end, making the Benjamin Stickney Cable Memorial almost a model small hospital. "Almost" a model—for, although it is an ungrateful task to pick flaws in such an excellent design, we must regret that the delivery room has been placed in the operating suite. In spite of the theoretically perfect asepsis of the modern hospital, this location is, in our judgment, not justified even by the necessary limitations of space in a twenty-bed institution. Not only is the danger of cross-infection thus increased; the entire operating suite is unavailable for urgent emergency work during the often protracted period of the delivery. No matter how small the hospital, one room should be set apart for obstetric work exclusively.

The many admirable features of the plan will, however, repay careful study. The isolation suite, in particular, deserves notice.

The Modern Hospital Year Book

Shortly after the appearance of this issue of THE MODERN HOSPITAL, every hospital superintendent in the country will receive a copy of a volume of 734 pages to be known as "The Modern Hospital Year Book." This book contains, besides a survey of the needs of the hospital in its various departments, lists and descriptions of products, commodities, and devices made by responsible concerns and suitable for hospital use, thus constituting a reference book for superintendents and purchasing committees. The book is not issued for sale, but a copy will be lent without charge for a year to any architect, member of hospital building or equipment committee, or other person having a legitimate use for it. One of the most imperative demands made on THE MODERN HOSPITAL from the time of its inception has been for information in regard to the latest and best in hospital supplies and equipment. During the chaotic period of the war, this demand became more insistent than ever before. An adequate response, it was felt, involved the preparation of something like an encyclopedia of supplies and responsible manufacturers. The result was "The Modern Hospital Year Book." It is planned to include in future issues a survey of hospital progress for the year. The service rendered to the hospital field by such a reference book will, it is felt, be a most important one, and the need for it can not fail to increase with the inevitable increase in hospital activities following the war.

Dr. Hornsby Leaves the Army

Dr. Hornsby, whose retirement from the editorial board of THE MODERN HOSPITAL is recorded in another editorial, is now discharged from the army and will hereafter confine his activities to hospital consultation. We know that our readers will be glad to learn something of Dr. Hornsby's work in the nation's service and of his future plans.

At the outbreak of the war, Dr. Hornsby was called into service immediately as chief of the board of medical examiners in the central department. During the three months following December, 1917, when the southern camps were beehives of recruits in training and epidemics of contagious diseases, especially meningitis, were raging, Major Hornsby, at the request of the Secretary of War, visited nearly all the army camps and military hospitals in order to make the necessary changes to improve conditions for suppressing the epidemics. In April following, Major Hornsby was appointed by Surgeon-General Gorgas as chief of the division of hospital construction and also chief medical inspector of military hospitals with the rank of lieutenant-colonel, United States Army. In connection with this work, Colonel Hornsby had charge of the location, planning, construction, and equipment of all general and special military hospitals and of all appropriations for the department. Just before the armistice was signed, he began a campaign to

create more than a hundred thousand hospital beds in different parts of the country so that the sick and wounded from overseas could be returned to their own homes for convalescence, cure, and rehabilitation. Forty thousand of these beds had already been acquired when peace came. In the course of his service Colonel Hornsby traveled more than fifty thousand miles from army post to army post and from camp to camp.

Secretary of War Baker, in giving testimony before a committee of the United States Senate, spoke of his great respect for Colonel Hornsby's judgment, as that of "a most efficient hospital man" and "one of the ablest minds in the country."

Colonel Hornsby is now engaged in an advisory capacity with the American College of Surgeons; after the completion of this work, he will establish consultation offices at 541 Munsey Building, Washington, D. C. He will have associated with him his son, Mr. Hubert Hornsby, who also is just discharged from the army after a continuous campaign of twenty months' hospital service in France and Flanders.

Undoubtedly, as time enables him to do so, Dr. Hornsby will be back with his pen for renewal of friendships in the field of hospital literature.

The Care of Infectious Diseases in the Hospital

A series of articles by Dr. D. L. Richardson, superintendent of Providence City Hospital, Providence, R. I., dealing very fully and completely with the care of infectious diseases in hospitals will begin in the next issue of THE MODERN HOSPITAL.

The first paper will be devoted to "Transmission of Infectious Diseases"; it will embrace the common infectious diseases which should be admitted to a hospital, their causative agents, and the route by which they leave the body, and will cover the modes of transmission, particularly under hospital conditions. The second article will discuss "Aseptic Nursing," including the origin of aseptic nursing, its use in French, English, and American hospitals, and will present statistics of cross infection; the third, dealing with the construction of hospitals for infectious diseases, will consider the size, site, plans, and arrangements of buildings. The fourth and fifth articles will deal with the management of this class of hospital; the fourth paper will be concerned with the general management and questions relating to the medical and nursing staff and employees, while the final article of this series will consider questions of management in detail, including aseptic nursing technic.

Dr. Richardson's series will be accompanied by several other papers on the same subject. Among these will be one written by Dr. J. G. Wilson, Passed Assistant-Surgeon of the Public Health Service, for which plans have been prepared by Mr. N. V. Perry, consulting engineer of the Bureau of Public Health Service.

Planning Largely

From the very incipiency of a hospital project, those in charge should have some vision of the future growth of the institution.

Very few hospitals fail to require expansion from time to time, and nothing should be built which does not fit into a definite scheme providing for the ultimate needs of the institution. And this scheme should be developed quite completely at the outset.

Where new hospitals have been started in a small way on fairly large plots of ground this prevision has sometimes been exercised, but, unfortunately, not always. The danger of a lack of foresight is likely to be greater in the case of a hospital started in a modest way, possibly in a remodeled residence on a comparatively small plot. In such a case the possibilities as to the acquisition of adjacent property, and the manner in which the hospital can be developed on such property, should be a matter of first consideration.

Care of Beds and Bedding

A great deal of attention should be given the beds, for a comfortable bed means so much to the patient. The important part is the mattress, which should be carefully protected with rubber sheeting or other impervious covering to prevent blood stains, etc. The sheeting must be watched for pinholes or cracks and exchanged or repaired as often as necessary. It should never be folded and laid away. Always hang it over a round pole. Sheeting, when worn, can be pieced so that no waste need occur. Sterilizing mattresses ruins the ticking in time and unless carefully done it damages the filling, whether it be hair or cotton. If the mattresses are placed on a rack in the open where the air and sunshine can penetrate them, the same purpose is served and they are kept fresh, soft, and pliable. Pillows should be treated the same way. Mattresses should never be stacked on top of each other in storage but should be placed on racks. When purchasing new mattresses and pillows, be sure to get them from a reliable firm, for many of the mattress factories are very insanitary and are germ-breeders. Visit a few of them and see for yourself.

Make Your Window Heads High Enough

The hospital superintendent, in checking over the plans, should assure himself that the architect has carried the window heads as close as possible to the ceiling. The tendency of the architect in ordinary construction is to drop the window heads some distance below the ceiling, because of the more pleasing effect in the interior of the room. In the case of the hospital, however, the necessity of ample ventilation requires that the window heads be as close as possible to the ceiling within one foot. As the ceiling in the hospital is generally at least two feet higher than the ceiling in ordinary houses, and as the window sill should be low enough to allow the patient in bed to see out the window, the architect must accept the unusual situation and adopt a much longer type of win-

dow than any which he would use in ordinary work. This seems elementary but it is worth insisting on.

Give Your Department Heads a Chance to Grow

It is poor policy to economize on the salaries of heads of departments. The efficient ones will not remain long with the hospital unless they are suitably compensated and the inefficient ones are dear at any price. The superintendent should determine the broad policies for the various departments, but should leave the routine operation of them to their heads. It is not wise to interfere too much with departmental heads. The best way to develop them is to give them all the responsibility they can carry. When given responsibility, it is surprising how rapidly they will develop.

A Quick-Action Repair System

The following repair system which has proved successful in some institutions is worth consideration. When a needed repair is reported, as, for instance, a broken lock, a triplicate order is made out, the original for the engineer, the duplicate for office record, and the triplicate as a paster or tag to be attached to the part needing repair. The tag or paster remains on the broken part until removed by the repair man on the completion of the repair, and serves as a constant reminder that an order has been issued, with date. This system tends to promote quick action, for no engineer cares to have a lot of placards continually announcing that he has not performed his task.

Checking Up the Food Waste

Those who have not put in practice a food waste accounting system should carefully examine the system suggested in a booklet issued by the United States Food Administration entitled "Institutional Food Conservation," containing suggestions adapted to state and public institutions.

A proper system will enable the superintendent to know by a record on his desk whether his employees and patients are being served too much or too little of any particular article of food, as well as whether or not the quality or preparation is satisfactory.

Loose-Leaf System for Medical Order Books

Medical order books such as used on the floors for physicians' orders, etc., are quite an item of expense when bound books are used. The loose-leaf system such as students use is very much more economical, providing paper with fine ruling on both sides is purchased so that as much writing can be crowded on a page as possible. Loose-leaf covers 9 by 11 can be purchased for about 40 cents each and will last for years.

THE LATCHSTRING OUT

Mr. Douglas C. McMurtrie, director of the Red Cross Institute for Crippled and Disabled Men, New York City (whose article, "The Attitude of the Middle Ages Toward the Crippled and Disabled," by the way, appears in this issue), looks at the problem of rehabilitation of the handicapped not merely from the point of view of a philanthropist, but also from that of an employer. Upon the occasion of a recent visit to our office, he told us that he was an employing printer and that he spent almost an hour a day in his own printing shop among the workmen, while it is well known that anywhere from ten to fifteen hours of his time daily is consumed by his labors in the interest of soldier and civilian disabled and crippled men.

Dr. Aretas E. Kepford, Iowa state lecturer on tuberculosis, whose interesting letter on the Community Hospital Organization at Creston, Iowa, established by Dr. C. E. Sampson, on page 200 of the September issue, will be remembered by our readers, recently brought to our office news of further progress in this movement. Dr. Kepford was instrumental in organizing the Washington County Hospital at Washington and the Jefferson County Hospital at Fairfield. He believes that the Creston hospital movement marks a distinct step forward not only for the state of Iowa, but for rural hospitalization in the United States.

The salient feature of the plan is that it incorporates into a whole the individuals and organizations of the community for the health, enlightenment, and upbuilding of the community. Six counties, with a total population of 100,000, have been organized into the Greater Community Association, within which is the Greater Community Hospital Association. Churches, schools, and individuals are paying members of this association. The community hospital is the center from which radiates health and education. A contagious disease hospital and a tuberculosis annex are planned.

Mr. Frank E. Chapman, superintendent of Mount Sinai Hospital, Cleveland, while on a visit to our office, told us of a unique system recently installed in his hospital for the purpose of increasing the efficiency of the service rendered to patients. Mr. Chapman's fundamental idea is to make the patient feel that it is his viewpoint which is to be considered in conducting the service of the hospital, and to this end, he encourages the patient to offer criticisms and suggestions. Shortly before his discharge from the hospital, the patient receives a letter asking, in an informal way, for his ideas on bettering the service. This letter is an individual one, ruled on the back to facilitate reply. Each answer is acknowledged by a letter which is signed personally by the superintendent of the hospital and, where pertinent, specific mention is made in the letter of the suggestion, complaint, or criticism offered. In cases which justify it, the superintendent makes a personal visit to the patient and talks the matter over with him. Mr. Chapman reports that about 90 per cent of the patients take advantage of the opportunity thus offered them, and adds that many constructive criticisms and suggestions have been received in this manner. By way of illustration, he tells of one patient who complained that, when she rang for the nurse, the signal over her door (which, of course, remained lighted until the nurse answered the call), reflected in her eyes and bothered her. A little opaque paint on the extreme end of all nurses' lights remedied the defect and cured an ill which perhaps would not have been thought of had it not been called to the attention of the authorities.

Several months ago when the new nurses' home at Mount Sinai was opened, the building which formerly housed the nurses was transformed into a nursery which now accommodates seventy-five children. It includes seventy-two private and semi-private rooms.

Mr. Chapman is an advocate of the ward idea, as opposed to that of cubicles. At Mount Sinai there is a system of sixteen bed wards with eight isolation rooms. If the condition of the patient admits it, he goes into the isolation room. After he is convalescing, he is put into one of the wards. There is no differentiation of pay, part-pay, or free patients in the wards. The cubicle system, he feels, means increased construction cost and increased operating cost, and no greater degree of safety from cross-infections is secured by its use than that which is afforded by care and good technique with the ward system.

THE MEMOIRS OF A HEAD NURSE

VIII. When Jerry Came Over—Being One Night's Story in the War History of the Head Nurse

"Rain and mud, mud and rain, and dim lights, and a flare in the sky," grumbled the head nurse as she scraped the mud off her rubber boots on the taut rope that stretched down from the field hospital tent to the tent peg, before she opened the flap to enter. "If I live to be a hundred, they will always make me think of France and the war."

"Yes, rain now," said the British V. A. D., "but I'll wager that by nine o'clock it will be clear again and the moon will be up, and we'll be a fair target for Jerry when he comes over the lines to drop his pills. Before another morning, perhaps, some of the men or some of us may be 'going west.'"

"Oh, cut it out," said the head nurse, a bit irritably, "I don't love the Gothas or Jerry's pills any more than you do, but I'm not going to talk about it or think about it either before they get here. And besides, what's the use? If a shell or piece of shrapnel has your name on it you'll get yours, and if it isn't your time yet you won't. I don't believe it would be such a bad way to go, anyway. I would just as soon have a Jerry pill knock my head in as to wear out my heart and nerves in a hospital back

Red Cross Hospital No. 110, Coincy, France, in August of last year. Above, the nurses are just arriving, seven days after construction was begun; below, they are washing their clothes. The large central picture shows part of the evacuation hospital of the twenty-sixth division, in France, with American convalescents.

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The tent hospitals shown in these pictures are not at the front, but they resemble in several particulars the field hospital described in the story of the "Head Nurse" this month. The two smaller pictures at the upper left and lower right respectively show American

home or come to my finish with some lingering old thing that would lay me up for years before I could get away. Entrez, mademoiselle. We are probably due for another convoy tonight, and it is up to us to be ready for it, even if Jerry does come over."

Like many other field hospital tents back of the lines, this hospital had a floor of earth, with boards to walk on down the aisles and in between the beds. Small double windows in the canvas at regular intervals kept out the weather—and the air, too, because the *poilus* and even the *médecin-chefs* of high degree had a wholesome fear of fresh air for the sick. The beds were like cots, cov-

ered with red or gray blankets. At one end of the tent was a row of wooden tables against the canvas for preparing food, medicines, and dressings, while down the center aisle were other small tables where the patients' records and doctors' orders were kept. Beside most of the beds were crude tables or wooden boxes and ammunition cases that served to hold the men's personal belongings or their food and dressings.

The tent was lighted by one arc light in the middle of the roof, with smaller incandescents at each end near the exits and another at the nurse's table. Fifty beds filled the tent, and every bed had a man in it. The whole place was strangely silent. Once in a while one could hear a sort of muttering from some of the beds, as of patients in a delirium, and from one bed near the entrance came the sound of the heavy, stertorous breathing indicative of coma.

Near the farther end were two stretcher-bearers, rolling a silent figure in blankets. Placing it on the stretcher, they clattered out slowly and awkwardly over the boards in the aisle. One of the bearers was a Boche prisoner; the other was a Scotchman with three fingers missing from one hand and a perceptible limp in his gait.

As she entered, the head nurse was strangely picturesque, in her uniform of gray, with stiff, white linen cap bedecked with a tiny red cross in front, and her cape of dark blue lined with brilliant crimson thrown back over one shoulder. She came down the center aisle to the chart table, and a young girl seated there stood up. She was a very young girl, wearing the pale blue uniform of the American Red Cross nurses' aide, blonde and pretty as a poster picture, but now pale and white, with dark circles under her blue eyes. She was one of the many who had left beautiful homes and everything they could wish for, to come to France, where they must wade through the mud, help cleanse the filthy pus wounds of men in agony, and often have for food only boiled horsemeat and moldy bread.

"How is everything?" asked the head nurse.

"About the same," answered the girl in blue. "The man who came in with the big head wound this morning —they have just taken him out. I think you saw the stretcher bearers as you came in. Jules, near the door there in No. 25, his breathing is bad. He can not last long."

"Yes," said the head nurse softly, "I know. And the others?"

"All right, I think. Some of the temperatures are high, but their general condition is good. I helped the two *infirmières* get Tent 5 ready in case we get another convoy tonight and need it. Oh, yes," looking at her notes, "Bartrand, that young infantry officer in bed No. 9, that nice boy with the bad chest wound—he does not seem right to me. His lips are blue, and he sleeps so much. It is hard to rouse him to get him to drink or take his medicine."

A little frown showed on the head nurse's forehead and came down between her eyes. "I'll have a look at him before I make my rounds," she said. "Bring your flash. It is dark over in his corner."

Softly she and the V.A.D. and the blue aide went along to the corner, where in a bed separated from the rest, the young Bartrand lay, apparently sleeping. Leaning over him lightly, with a mother touch the head nurse laid her hand on his forehead.

"Comment ça va?" she queried, in one of the few French phrases she knew.

The boy's eyes opened, dazedly, and blinked in the glare of the aide's flashlight.

"Bien, ma soeur," he said, "ça va mieux."

Suddenly the tent flap nearest them opened. The Scotch orderly entered, reached quickly for the knob that governed the big center tent light, and switched it off. Without a spoken word the aide covered her flash and sprang to extinguish the desk light while the V.A.D. hastened to put out the others. By this time Macdun (short for MacDonald) was creeping along the tent wall behind the beds to be sure that each window was tightly closed. Even shrapnel from your own protective barrage will make nasty flesh wounds and destroy sight.

Overhead there gradually came into hearing a steady, regularly interrupted drone, like that of a malignant insect—then a flash—a great roar, not very far away—and the tent shook like a leaf in the wind.

At the first sound of the raid, Bartrand had started, sitting upright in the bed. The head nurse, helpless in the intense darkness, and fearing to make him more restless by attempting to put him down, held him in her arms. Soon he began to call out orders, rapidly, precisely, like a man who is used to being obeyed, and then still louder, with more spirit, until his voice rang and reverberated through the open spaces of the tent. "Attention!—Allons, mes enfants!—En avant!"

From somewhere in the darkness the voice of the aide, a trifle shaky, said, "He thinks he's going over."

Another flash—another detonation—this time nearer. The head nurse felt something warm and wet soaking the front of her uniform. Then a silence—it seemed for ages. Finally Macdun, flashing on the light, called out, "They've gone, the beggars!"

He came over to the bed and gave one look at the burden the head nurse held in her arms. Then he took off his hat and held it, folded, in front of his coat.

"You can lay him down, Miss. I think there's just work for me and the stretcher-bearers now. The puir laddie's gone west."

RELATION OF HOSPITAL SOCIAL SERVICE TO THE SUCCESSFUL TREATMENT OF GONORRHEA AND SYPHILIS*

Function of Social Worker in Clinic for Syphilis—Medical Care of Hospital and Dispensary Must Be Supplemented by Social Service—Meaning of "Follow-Up" Work

By IDA M. CANNON, Chief of Social Service, Massachusetts General Hospital, Boston

We shall hear many times during this session of the American Hospital Association of the different problems with which hospital administrators have been confronted during this very perplexing past year. Not the least difficult of these problems to many of our hospital superintendents has been the responsibility placed upon them by the nation-wide program prompted by the Surgeon-General in his effort to control the spread of the so-called "venereal diseases." Such a program as was outlined in the bulletin of the United States Public Health Service (No. 447) is absolutely dependent on a widespread use of the dispensary and hospital facilities of the country.

It is a matter of more than historical interest that, written into the histories of some of our honorable medical institutions, are such sentiments as these: "Persons suffering from alcoholism and venereal diseases shall not be treated, being victims of their own sensual indulgence."

The most significant thing about this is not that it is

* Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, Sept. 24-28, 1918.

a puritanical and distinctly antisocial point of view, but that it has resulted in forcing patients with syphilis and gonorrhea either to go without treatment or to resort to the mercy of the ignorant and often vicious quack. And society has all these years been reaping the consequences of this unintelligent attitude.

I know of nothing in the realm of medicine that more clearly reflects the influence of sociology on medical science than the changing attitude towards our responsibility for the care of patients with syphilis and gonorrhea. I say "changing" because we have only begun to see how much rests upon us in the promotion of the government's program. I say "we" because I believe that it must rest not alone on the hospital administrators but also on those whose special concern is the hospital's community relations. I wish today to place before this group of hospital administrators some of the fruits of experience that the hospital social workers have already had in this field. Then you may possibly help us to give greater service both to the patients who will come to the hospitals in greater numbers, and to you in your increasing responsibilities.

In a survey made in 1916, it was found that, out of 126 social service departments, 50 were giving special attention to syphilitic patients, 39 were dealing with the problems of gonorrhea in children, and 31 with gonorrhea in adults. If a similar study were made this year there would undoubtedly be many more on the list, because of the great increase of interest in the subject and the recent legislation in many states. I wish to review briefly some of the various phases of the problems as they have presented themselves to the hospital social workers. I want to show you, if I can, that we have found more to do than merely to manage a follow-up system and to see that salvarsan is paid for.

Here is one worker's conception of the function of social service in a clinic for syphilis with an attendance of about 100 a day and a continuous medical service in dispensary and hospital wards.

I. Within the clinic:
   A. To meet personally and get a minimum social history on every new patient.
   B. To supplement the advice and instructions given by the doctor, regarding treatment, prevention of spread of disease, and interpretation of disease when necessary.
   C. To select with discrimination and after conference with the doctor those cases that need special medical social service; for instance, the young girl with infectious lesions living in a lodging house or the deserted woman with several children, who is sorely in need of bed care but cannot see her way clear to leave her children.

II. Outside the clinic:
   A. To supervise the follow-up system; that it may function to meet the requirements of the various groups of patients.
   B. To place the responsibility for payment for salvarsan properly on one of the following: (1) the patient or family, (2) the hospital, or, (3) another social agency.
   C. To give special supervision to selected groups (determined by doctor and social worker), including (1) all infants, (2) children, (3) pregnant women (including special group referred from a lying-in hospital), and (4) the married group (in interest of the children).
   D. To "round up" for examination members of the families.
   E. To maintain such a relation to the physicians on the one hand, and the patients on the other, that the internal organization acts as a unit to minister to the needs of, not one or a few patients, but the entire group of patients in their proportionate needs.

This medical social worker feels a definite responsibility to the superintendent of the dispensary to give him the necessary social data that will make it possible for him to determine which patients ought to have free salvarsan, admissions or medicine, and to distinguish those cases in which the board of health should be held responsible and those cases that have any court relations. She also stands ready to give him the necessary social information on cases concerning which information is asked by outside physicians or social agencies. For the ward patients she gives special attention in reporting the financial situation when it is known, in rendering any social service that may be needed while patient is in the hospital, and in knowing to what conditions patients are to go on discharge.

In the teaching functions of a syphilis clinic the well-equipped hospital social worker may be very useful in interpreting the medical-social problems of syphilis to the nurses assigned to service there, to the medical students, and to the social workers who are bringing patients to the clinic. Throughout, her task is largely an educational one.

A rather lengthy report of the experience of the hospital social workers of the country in the medical-social problems of syphilis and gonorrhea was presented to the National Organization of Public Health Nursing at its meeting last May. In that report[1] we gave in some detail the methods that had been developed in meeting the medical-social problems of the infectious syphilitic, the hereditary syphilitic, the vagrant, the prostitute, the special problems of married women with gonorrhea, the unmarried women, and babies with opthalmia neonatorum. Some of the points made in that report I should like to emphasize again.

Social service departments in hospitals and dispensaries where syphilis is treated have without exception been asked to help secure payment for salvarsan. The question of financing the treatment of syphilis has been somewhat modified by recent legislation, so that in many states it is possible to give free arsphenamine to those in the active, infectious stage who cannot pay. We still must be prepared to determine the ability of the patient to pay and, what is most important, the necessity for continued treatment after the infectious stage is passed; and this may involve financial arrangements even in those cases in which the patient may be able to pay for two or three treatments. Those who live within the limits of the law only, may serve to render the patient non-infectious to those who may be in immediate contact with him, but the cure of the patient by thorough treatment, which alone will satisfy our best physicians and protect possible offspring from possible infection, is scarcely a lesser public health responsibility. Those who are familiar with the ravages of congenital deafness of specific origin and with such eye handicaps as interstitial keratitis and other manifestations of congenital syphilis would plead for further responsibility than interest merely in the cases of the early infectious stage. An adequate follow-up system, supplemented by adequate social service, should make it possible for a clinic to keep this personal hold on the patients until their discharge by the physician.

The question of securing hospital bed care for patients in the infectious stage has possibly been a question more serious to hospital social workers than to hospital administrators. It is easier to refuse admission because of lack of room or special provision for such cases than it is to face the situation with the patient, knowing the social situation well enough to appreciate the possible

[1] Public Health Nurse, August, 1918.

consequences of having the patient return to her home or lodging house. Two cases may serve to illustrate the part social service may take in supplementing the medical care that a hospital and a dispensary gives.

The first illustration is that of a single girl, twenty-four years old, a waitress in a large boarding house, who was found suffering from secondary syphilis of known origin. As soon as the diagnosis originally suspected by the physician in the employ of the boarding house had been confirmed by the specialist, the first physician was about to advise the matron to discharge the patient. The medical social worker, after consultation with the specialist, requested the physician to reconsider and to ask the matron to give the girl leave of absence until such time as the physician in attendance considered it safe for the girl to return to her work. This the matron was glad to do because the girl had worked there seven years and was a valuable servant. The girl's only relative in this country was a married sister who had young children and a husband who would have turned his sister-in-law out had he known the diagnosis at the start. The Associated Charities was asked to give emergency relief and to supervise the girl in a lodging house where light housekeeping arrangements were possible and where the girl might cook her own meals and use her own dishes during the time necessary. (This patient was in a community in which, at that time, there was no provision for hospital bed care.) Later the girl was allowed to go to her sister's home, and the brother-in-law, after thoroughly understanding the situation, proved a valuable ally. The girl was most faithful in carrying out treatment and now, five years after the original trouble, is still working in the same place and coming to the clinic once yearly for a Wassermann test, which continues to be negative. She will soon receive her discharge from the clinic.

The second illustration is that of a woman, aged twenty-six, who had been married two years and whose husband had deserted her after one year. When she came to the clinic, she was suffering from secondary lesions of syphilis. She had been working for a small wage since her husband deserted and living with a married sister who has two small children. It was financially impossible, and socially and medically not feasible, to allow the patient to be an ambulatory case in the sister's home. Immediate bed care was arranged for three weeks, after which time the patient was allowed to go to her sister's home and to her work, as she was no longer infectious and, with supervision and treatment, not a danger to anyone. While in the ward the patient admitted probable pregnancy, which had been suspected upon physical examination. The father of the child, who admitted paternity, a married man, agreed to assume financial responsibility for the child but not for its mother. A suitable social agency was asked to assume social responsibility for the patient. The child was born prematurely at a lying-in hospital. The three weeks' hospital care was a small part of this patient's needs, but it was all the hospital care necessary.

With careful planning for after care as soon as the patient is fit for discharge, one bed may be made to serve eighteen or twenty patients a year.

There are two matters of terminology in relation to this subject that ought to be made clear. First, the term "venereal disease" is not acceptable to many of us. It is a relic of the time when the whole subject was approached from a moral standpoint and when there was no scientific discrimination between the two distinct diseases, syphilis and gonorrhea. Since the government has chosen to use the term it will probably be difficult to drop it, but I never use it without an apology. Its use can only add to the confusion in the lay mind concerning two diseases that are, first of all, in no sense similar pathologically and, according to some authorities, venereal in only about 50 per cent of the cases. The moral connotation is intolerable when one has in mind the innocent wife, the little girl accidentally infected, or the baby with ophthalmia neonatorum. While we must agree that in the last analysis the origin of these diseases is venereal, it would seem to me to add to the confusion in the minds of those who believe that the health approach is the more promising of success if we are to promote the general use of the term "venereal diseases."

Another term that is used without discrimination is "follow-up." There seems to be some confusion in the minds of those who are not familiar with a well run social service department between the function of the hospital social worker and the manager of a successful follow-up system. Those who are familiar with both will agree, I believe, that a follow-up file for the purpose of keeping track of the attendance of the patients can easily be managed by an intelligent woman whose function should be, not merely a clerical one, but also that of adding the element of personal interest which has much to do with keeping the patient coming to the clinic over a long period of tedious treatment. The manager of this follow-up system should feel responsible for seeing that the patient understands when he is expected to return, that it is important for him to return, that he secures his medicine, and, if necessary, that letters are written to those who fail to return. She may even make visits to the home to inquire why the patient has not returned. But this is not what we mean by social service, although some hospital social workers may perform these tasks. In a recent bulletin issued by the Public Health Service, we find, under the caption of "follow-up," these duties outlined:

"'Follow-up staff.' The development of a scientific yet 'human' follow-up system is perhaps the most characteristic feature of the 'modern' venereal dispensary, and marks it off most sharply from the policies, precedure, and results of the traditional 'clap clinic.'

"The principal functions will be:

"(a) Supervision of the prostitute patient, including enlistment of the sympathies and support of social betterment agencies for the deserving case.

"(b) Establishment of good 'team work' with the police and reformatory agencies for the purpose of the suppression of the incorrigible type, or at least their temporary isolation for a period sufficient to insure their treatment to the point where they cease to be spreaders of infection.

"(c) Looking up validity of reports from patients as to sources of infection.

"(d) Enlisting co-operation of employers of labor to encourage utilization of the services of the clinic.

"(e) Checking up mentality of prostitute patients and enlisting the assistance of proper authorities in cases of those deserving special handling as mental deficients.

"(f) Keeping track of 'parole' patients of both sexes.

"(g) Looking up patients still in need of treatment who fail to report at the clinic. In some clinics the services of a full-time specially trained 'follow-up' worker will be needed. In others, various part-time adjustments will be necessary."

The term "follow-up" work is used to designate this varied service, which is obviously different from the usual acceptance of the follow-up work of a clinic. The term "social service" is almost as vague; so I presume that it is not for us to throw stones. We must help to develop a more discriminating terminology.

I want to tell you of a few cases that are at this moment in the hands of our social workers at the Massachusetts General Hospital, which will possibly show more clearly than argument the distinctive function of the social worker in the gonorrhea or syphilis clinic.

About ten days ago a little boy of 10 was brought into the clinic by his father, a conductor on the street railway. A diagnosis was made of acute urethritis from a gonorrheal infection. The boy told the medical social worker quite glibly and with no trace of embarrassment of the experience causing his condition. His attitude made the social worker suspect that he was either lying, having been instructed what to say, or that he was a psychopath. The father, much surprised and distressed over the diagnosis,

could give no enlightenment. On a visit to the home, the social worker found that the mother worked out by the day to help meet expenses; that the oldest girl, fifteen years of age, was in charge of the home, and that, although it was the middle of the afternoon, she had not yet dressed. The house was in great disorder, and the five younger children were unkempt and uncontrolled. I will not take time to trace the various steps by which the wretched situation was brought to light. The *medical* situation at the end of the investigation necessitated emergency admission of an eight-year-old sister into an eye infirmary for a serious gonorrheal infection (she also had vaginitis), treatment for a baby sister of three also with vaginitis, and a gonorrheal infection of the fifteen-year-old girl. The investigation revealed the fact that she had been infected by a cousin in a neighboring state where they had spent the summer, and now this girl of fifteen was practically a prostitute. The original patient, when examined by a psychiatrist, was pronounced a moral delinquent but probably mentally normal. The follow-up of medical treatment is obviously only a small part of the treatment of this case; it must be medical-social treatment if it is to be effective, and the skilled medical care must be balanced by equally skilled social care. Steps have already been taken to place the girl under parole of the girls' industrial school. The mother must stay at home to care for the children and her home, and the boy, aside from medical treatment, may possibly have to have institutional supervision. Let us hope that we may not have to arrange for the education of the eight-year-old girl at an institution for the blind.

A child of three was admitted to an eye infirmary with acute gonorrheal conjunctivitis and vaginitis. The medical and nursing care were started promptly. To safeguard the after-care of the patient and forestall a reinfection, a medical-social worker investigated the situation at home. A distraught mother disclosed the fact that the father, recently returned from a hospital for the insane, had what the doctor called a "bad disease." He had secured some medicine at the druggist. This was the only treatment he was having. Is a simple medical follow-up sufficient in this case? Should that father be at home? Is he responsible for his action? Was he the cause of the child's infection? What is his medical condition? Ought he not to have treatment? These are some of the questions that the medical social worker must answer, and on the answers she must base her plan for helping that family to get back to a basis of decent and healthful living.

A boy of seventeen came to a clinic a week ago with an acute gonorrheal infection. He told the social worker, a man, that he had run away from home a year ago after a quarrel with his stepfather and had gone to France with a load of horses. The social worker, after several talks with him, persuaded him to write to his mother, and a few days ago a telegram came from her urging him to come. The necessity of continuing his medical treatment has been made clear to him, but he also left the clinic, both with a deeper knowledge of himself and the dangers he was in, and a conviction that he would tell his mother the whole story and try to start again on a straighter road.

Such cases as these are the daily concern of the hospital social worker in clinics where syphilis and gonorrhea are treated and the patient considered as more than a "case."

One superintendent testified that the new law in Massachusetts requiring reporting and follow-up of patients treated for syphilis and gonorrhea had not been as great an additional burden as he had anticipated because of the fact that the clinics that were treating these diseases had already an efficient follow-up system and trained medical-social workers assigned. The hospital had already assumed the responsibility now put on it officially by the state, in interest of efficient treatment of patients and protection of public health. Requirements of the law necessitated little more than adding extra clerical service for reporting cases. The workers with whom I have talked recently see several duties quite clearly. They can all be summed up in education. The Government's program asks the hospitals and dispensaries to instruct the patients. They can do their part effectively in no other way. This task may well be placed in the hands of the medical social worker. The question of how much the patient should know must be answered by the doctor, but, after that is determined and after an educational plan is decided upon, there must be endless and untiring personal work with the individuals who are going through the experience of facing the consequences of the infection, regardless of its source. And the mental adjustment is recognized as the biggest part of the problem, whether it be that of a wife who is striving to reinterpret her attitude toward her husband or the recalcitrant patient who must be made to submit to the law.

The hospital social workers generally regret the interpretation of the law as a punitive measure. They are finding instances of unscrupulous doctors who threaten patients with arrest if they do not return to them for treatment. All such misconstruction of the law can only be combatted by education. The public must know that syphilis and gonorrhea need treatment by specialists. Further legislation is needed to combat the drugstore evil. There must come a fuller appreciation of the necessity for thorough and prolonged treatment until cure is established.

On every hand we find evidence of the necessity for early education that will give young people a deeper understanding of themselves. It is almost too obvious to add that the installation of ideals in our youth—the greatest safeguard of all—is sorely lacking.

You hospital superintendents, superintendents of nurses' training schools, and we hospital social workers have here a joint problem. No one of us can carry the responsibility alone. Cooperation is essential.

Abstract of Discussion

MR. D. D. TEST, Philadelphia: I would be very glad indeed if Miss Cannon would tell us something about the handling in the hospital of vaginitis in the little girl and ophthalmia in the baby.

MISS CANNON: The care of the patient with vaginitis is one of the greatest problems I have ever had any contact with in the twelve years I have been a hospital social worker; primarily, because the doctors do not agree about the necessity for treatment or about when the patients are cured, and we always find ourselves wabbling when the doctors do not agree. We have not the hospital facilities for the care of these children. You have all known the tragedies that come from introducing into the wards a child that has vaginitis. I do not feel satisfied with what we have done. The effect of treatment on these little girls is a very serious thing; whether it is more serious than the effect of later treatment, I am not prepared to say. We have one worker assigned to the special job of looking after the babies with ophthalmia neonatorum. Only 50 percent of those are found to be of gonorrheal infection. We attempt in every instance to continue the breast feeding of the baby. The Massachusetts Charitable Eye and Ear Infirmary, where patients come from all over New England (only 45 percent from Boston) has been generous enough to admit mothers of those babies who

come from some distances and who could not otherwise give the babies breast feeding. They stay there during the time that the baby is having care. In cases in which the mother can not come, many times the infection develops before the mother is able to be up, and it is the job of the social worker, first of all, to get hold of the doctor and have him tell her not to dry up the breast, and to get a public health nurse, if possible, to send the milk by parcel post or at least to keep the breast active so that when the baby goes back she will be able to have breast feeding. We have in Massachusetts a law for reporting opthalmia neonatorum. There is in these cases very close relationship with the Commission for the Blind, to which any case in which there is the slightest evidence of medical neglect is reported for investigation and prosecution. We are working very closely with the public health nurses on these cases, and it is a very significant thing that last year—we have about 125 babies a year—there was only one baby whose sight was practically gone, and that was brought in too late to save. There has been a very distinct decrease in the number of babies with defective sight, as a result of this vigorous follow-up and the efficient medical care which was given in a separate building from the rest of the hospital.

DR. R. J. WILSON, of New York: In regard to this care of vaginitis in the female infant, the easiest way, of course—I do not say the right way—is to keep it out of the hospitals entirely, so far as possible, by having a vaginal smear made in the admission room and excluding the case if the smear is found to contain the gonococcus. If the case must be admitted, as it must in certain kind of hospitals, especially those that take infectious diseases, four isolation rooms are required independent of the wards. Each isolation room is a little unit itself. When the case comes to the admission room, a smear is made. If that smear is positive and the child has a discharge, it is sent to a room taking care of acute gonorrheal vaginitis. If the case is found to have a discharge containing no gonococcus, the case must be sent to a room devoted to the care of acute, suppurative vaginitis of an origin unknown. If there is no vaginal discharge whatever but the gonococcus is present in the vaginal secretions, the case must be sent to a room devoted to the care of cases not of gonorrheal vaginitis, but to a room which, for the sake of argument, we will say is a room for carriers of gonococcus infection, because there is no acute discharge but there will be some time. Now, there is a large group of cases on which the diagnosis laboratory can return no positive report; they are always sent back as suspicious. You must have a room devoted to the care of suspicious cases until diagnosis can be established. Without those four rooms, separate and independent of your wards, there is no use attempting the care of vaginitis, because you can not take care of it in the right way. In a small hospital, however, where few cases are being admitted, you would not have, in the children's service, probably more than one case, and I would pick out a small room and devote one nurse to the care of one child.

DR. JOSEPH BYRNE, New York: Knowledge does not confer wisdom, nor does it insure right conduct. You must train your boy and your girl along the lines of spiritual improvement; you must train them to be good; and the only way to do that is by the practice of virtue. A practical thing to bring home to these boys and girls whom you are trying to teach is that no individual can ever enjoy liberty without proper subjection to law. That is the great principle. I would add that no person can ever attain to true happiness without reasonable repression of his interests. I am going to do an irregular thing by suggesting to you to read a book, "The Sex Problem and Marriage," by Professor Foerstier, of one of the great universities in Switzerland. It is by a master mind, written in a masterly way. Get the book at the public library and read and digest it.

MR. DAVIS, Chairman: If we want social workers for this kind of work, can you tell me how we are going to get hold of them and what kind of people do we want to look for?

MISS CANNON: The only way to get a supply is to make a sufficient demand. The hospital social workers of the country have felt very keenly the necessity of standardizing our service and of increasing the number of properly trained hospital social workers. We have, therefore, organized a national organization, which is meeting at this time so that we might have these joint meetings with you. One of our problems is this question of the proper training of the hospital social worker. At present there are several places where hospital social workers are trained, but there are a great many hospital social workers who are doing hospital social service who have not had proper training, because the demand has been so tremendous that people who have not been properly equipped and who know they have not been properly equipped have had to go in and do what they could; but it is for us, as a national association, to try to standardize that. There are in New York two courses that are being given, one at Teachers' College under the Department of Health and Nursing, to which only nurses are admitted, and one at the School of Philanthropy in New York, to which both social workers and nurses are admitted, and they have some medical education. We have in Boston a course at the Boston School for Social Workers. There is also a course being given in Philadelphia. There are several other schools where lectures are being given, but I do not know of any others where diplomas for hospital social workers are offered. There are, however, in our group of hospital social workers, many who have had social training and training in nursing, some who have had medical training, and others who have had scientific training in our colleges and then some social training and experience in dispensaries. We are a haphazard lot, not a standard article yet.

MR. TEST: I have been afraid that, in our endeavor for efficiency, we are thinking too much of cases and not enough of human beings. I feel that every one that applies to any hospital should feel that he or she is applying to a real friend in need. That spirit must preeminently radiate from our social workers.

MISS CANNON: I don't want you people to leave this room thinking that the social workers in the hospital are going to assume all the responsibility for the humanizing element in the hospital. We are not there for that purpose. We are there to bring a certain knowledge of the community that I think must necessarily be obscured to you, even if you have known something of social work, because you are living within four walls. It is for us to bring a knowledge and understanding and certainly a human interest, but we are not the ones who have to be responsible for all of that; and I do not want you to think that the American Association of Hospital Workers are going to have any monopoly of that human element in the hospital, or that we assume for a moment that it is our job and not yours, too.

DR. A. R. WARNER, Cleveland: I wish to second Miss Cannon's sentiments. It is high time that that thing was carried through to hospital superintendents, training school heads, managers and trustees. The hospital of today is a social institution, and the social service department is but an expression of what that hospital wants to do. Too often all the humanizing element has been left to the social service department, and there never was a social service department which could stand up under that burden or work with that handicap. There must be a united support in the humanizing life towards the whole hospital, or that social service department must be expected to fall.

THE PAY CLINIC AS A FINANCIAL ASSET*

These Clinics Make Money—"Organized Medicine" a Boon to Both the Medical Profession and the Community—Attending Physicians Must Receive Adequate Pay—Special Problems When Pay and Free Clinics Are Held Together

The following discussion ought to interest us all—we are all looking for money, as Dr. Robert J. Wilson, chairman of the meeting, said, introducing the topic of successful pay clinics, and the following experiences undoubtedly will contain valuable suggestions both for those who think pay clinics can be made a financial asset and those who are convinced that it cannot be done.

DR. A. R. WARNER, Cleveland: Mr. Davis requested that I open this discussion because I had remarked to him that

*Discussion before the Out-Patient Section of the American Hospital Association at its Twentieth Annual Convention, Atlantic City, N. J., Sept. 24-28, 1918.

I couldn't make our pay clinic lose money; that I had tried cutting the charges for drugs and medicines down to a point where they couldn't be cut any more if we were still to say to the patient, "You are paying for your stuff." I am paying the physicians and everybody else now, I am sure, all they are earning, and still the clinic makes money. We are also paying an allowance for light —not heat, because the building has to be heated anyway —and making another fixed charge for incidental cleaning, janitor work, etc.

The thing that Mr. Davis wanted me to bring before you was the fact that the organized practice of medicine can be done at charges far below the individualistic type of general practice. A physician spends half he earns —if he is really good, more than half—right back in his practice for books and equipment of all kinds in order to give his patients the proper service. The organized practice of medicine does not need to figure on those things at all. All income is straight income. The physicians who work in it have no expense. A physician can properly afford to work in a clinic which furnishes all his supplies, all his instruments—everything, even his patients; he doesn't have to pay for transportation to them, it brings them to him; he doesn't have to pay any office rent, and he can work at a less price per hour than he can afford to do in private practice. The physicians of the country are not adequately paid, and it is extremely desirable from the social point of view that there be some means devised whereby physicians in private practice may be paid a sum which will enable them to give high quality service. They are not now. The organized practice of medicine, which is all an evening clinic is, can be run on a very much lower charge for the patient. The patients pay the entire cost. They are not on charity in any degree, and the greatest satisfaction that they can get out of the whole thing is the fact that they are paying their way. The payment to physicians can be adequate. At Lakeside we are paying five dollars for two hours' work. If the physicians stay over two hours they get more money. They often stay less, but we don't dock them for a few minutes. That arrangement amounts to this: If a physician should work seven hours a day at that rate —and a physician should work seven hours a day—then allowing a liberal allowance of half of his gross receipts which are swallowed up by his office expenses, automobile expenses, instruments, etc., that five dollars for two hours, two dollars and a half an hour, corresponds to a private practice income of $10,500 a year, which is distinctly above the average. The patients in evening pay clinics pay on an average a fifty-cent fee. This fee does not cover the laboratory tests, the receipts for which are turned over to the hospital. They pay extra for supplies, up to five dollars, which is the usual charge for salvarsan, I believe. Now, those fees are furnishing in every pay clinic that I know more than enough money to run the clinic. It will soon get to a point where additional expense is compensated for completely by additional income. When you need to put on an additional doctor it is because of additional patients, and that means additional income. I don't know how large our clinic is going to grow. I don't care. The clinics pay their way, and the patients are the happiest and most satisfied patients that Lakeside Hospital serves. There is more or less kicking in all other places, but in the night clinic they all have a smile on their face.

I see no reason why any hospital, located in a district containing a number of workmen who are able to pay the doctor if he is needed at the house for a sick baby—and they should pay him if they call him—but who are not able to pay for a specialist's work or for the long, difficult chronic work, cannot open an evening pay clinic with one doctor maybe, or maybe two, depending on how big a program it is wished to start. Whatever the size, the doctor must be fully capable of getting the proper results in the program which is laid out. If it is to be a venereal clinic only, which many of them are, then the doctor must be competent to treat syphilis, not by prescriptions to be taken by the mouth; he must be competent to treat gonorrhea—not just to give prescriptions for many things that are used, but really to treat it; he must be a man who knows something about the disease and one who will instill in the patient the proper attitude toward it. If you are starting a clinic and wish to include the nose, ear and throat, and the eye, see that your man is competent, and I cannot conceive of any difficulties. The patients will come. You will have a deficit until you get started and then—I can't make a deficit in ours. I do not know of any pay clinic that has been running six months that can. They are all on the right side of the ledger.

Now, this is a dangerous thing to bring about in one way, and in one way only. Your medical profession may say that you are in competition with them, but at this time when the physicians of the country are overworked, when there is a need for any and every means which can make it possible for them to care for the civil population better, the night clinic is not meeting with any amount of opposition from this source; you can get away with the proposition as you never could have done before.

Miss Lucy C. Catlin: Last January in the dispensary of which I am executive director and also social service worker, we were desperate for the care and treatment of the venereal patients, and I was obliged to send them out on the streets in a highly infectious state, without any means of giving them treatment, for they had no money. Our specialist had gone. The matter was taken up with our social service board, who has the direction of the dispensary, and we started in the middle of January an evening pay clinic for venereal diseases. Some of the doctors said, "You are going to get into all kinds of trouble." It was up to me as social service worker to distinguish between the patient who could pay nothing and the one who could pay the full fee to the doctor, and to accept those who could pay a price which would cover the cost of treatment. In six months—a pretty good period over which to test a thing—we treated 250 cases. Remember, ours is a small dispensary—nothing like the one at Lakeside—and we had collected $566. This covered all expenses and left a balance in the bank. We found a doctor who could give adequate attention to it, including the medical and social side as well, and paid him pro rata for the pay patients. We treated in this clinic free and pay patients.

Instead of finding trouble with the doctors, we have had the heartiest cooperation. We accepted and gave treatment to cases that were diagnosed in the hospital wards by our staff men as syphilis and referred to the evening clinic for treatment. I can't say, as Dr. Warner does, that we have never had a deficit; we have had in one month a deficit, but it was made up by the profit of the preceding months or the succeeding months. The first of September, we were so depleted in our medical staff that it was almost impossible to get doctors for our general day clinic. We said, "Can't we place our dispensary upon at least a part-pay basis?"

The superintendent said to me, "How much money have you in your evening clinic fund?"

I said, "I have enough to pay a doctor one month," and so we put into operation on the first of September, and

are now trying out a part-pay clinic, which is run by our diagnostician; he takes care of all the cases that come to the dispensary, with the privilege of referring the cases for special treatment to the doctors on service in the hospital who have those cases to take care of in the house. We find that with this arrangement we are able to give the service to the patients that they need. The dispensary is more needed now in our community than it has been for some time on account of the lack of medical men, and we feel that it is going to be a success.

Because of ignorance of the patients, because of the lack of doctors, and because of the need of the patients for adequate treatment, I admit to the dispensary patients who would under other conditions be able to go to a doctor and pay him. Then I say, "Can you pay 50 cents every time you come to the dispensary?" This is the day clinic, and we hope to collect half enough to pay for our doctor; the other half will come, and more, from the profits at our evening clinic. We feel that we have accomplished a two-fold purpose through the successful operation of our evening clinic because it has enabled us to put our day clinic upon a part-pay basis. At the evening clinic we charge $5 for salvarsan, $1.50 for mercurial injection, $2 for Wassermann, and, if only the doctor's advice is given, $1 and a little more than the cost of the medicine; this ranges from 25 cents to $1 more than the cost of the ordinary prescription in the dispensary.

We pay the physician pro rata for the actual pay patients in the evening clinic. For the present we are paying him until we try it out at the rate of $2 an hour for his work.

MR. J. R. HOWARD, New York City: Mr. Chairman, I think it is rather unfortunate to keep putting the word "profit" into this business, particularly in a new form of institution, about which there is a good deal of criticism by the medical profession. As a matter of fact, there isn't any profit in it. The overhead is not taken into account, and the heat—there is a small allowance for light, Dr. Warner says, but whether the cleaning, etc., is included or not hasn't been stated. I think if this form of institution is to grow that it ought to be absolutely on a business basis and that it shouldn't be said anywhere at any time that there is any profit in it until the whole cost is covered.

DR. R. J. WILSON, New York City: That is, you think the greatest profit should come to the patient.

MR. HOWARD: It should.

MISS MARY L. KEITH, Rochester, N. Y.: May I ask if the men and women are taken care of the same evening in the same clinic?

DR. WARNER: Very careful instructions have been given that they must treat every patient as a private patient, and no two patients are allowed in the room with the doctor at the same time under any conditions. They have to wait outside in the waiting room. They have the whole dispensary as a waiting room but in the doctor's office they are handled absolutely as private patients. A man may be in at one time and his wife may be the next patient in there, but they are not there together, and they use separate benches for the men and women.

MISS KEITH: But they do wait in the same waiting room? They do come the same evening?

DR. WARNER: Yes.

DR. R. I. WILSON: In regard to your clinic, Miss Catlin, do you receive both men and women the same day?

MISS CATLIN: We do, but as Dr. Warner says, only one patient is allowed in the treatment room at one time. We have a general waiting room, and there is always a clerk there, and I am in and out all the time, and I know what is going on. No two are treated at the same time.

A MEMBER: Is this a war-time measure, or was this planned before the war? Dr. Warner intimated that there may possibly be some opposition to it on the part of the profession as being not altogether ethical or possibly as competition. We will admit that such a plan would act very nicely now with a shortage of physicians, but what was the attitude of the profession before the present shortage of physicians? Is this material used for teaching purposes?

DR. WARNER: Physicians have rights, but so has the community and so have the people. The average physician does not wish the case of gonorrhea or syphilis who cannot pay him the proper fees, and, therefore, these cases are being sent to our night clinic in large numbers. There is a class of physician who desires the case of syphilis that cannot pay the proper fees, but in the cases like this which have come to my attention the giving of improper treatment was still a profitable job because the worth of the treatment was considerably below what the man did actually pay. Now, my honest feeling is that in the development of a paid clinic which enables society to care for, say, twenty men, without making paupers of them, is contributing to the development of the medical profession—to the efficiency and to its cash in hand—far more than could possibly be contributed by allowing those twenty patients to go into twenty different offices and take up the time of twenty different doctors, paying them perhaps, and, perhaps not paying them.

A MEMBER: Do students go in as hospital clerks or whatever you wish to call it, and spend a certain period of time in hospitals as clinical assistants?

DR. WARNER: Their entire time in the dispensary is spent in the day dispensary and not in the evening. I have employed some of our interns, or residents, to a certain extent, for special work in the night clinic. There is one on duty every night. He does nothing but give the salvarsan. The physician in charge does not do that; I pay the intern extra; sometimes we have employed an outside man for this work, but always a man who is competent, in my judgment, and he is always paid for it. The cases are sent in to the hospital just the same as from the day clinic. Any time that the university wishes to send men to our evening clinic they may do so.

MR. MICHAEL M. DAVIS, Boston: This morning in general session it was said that there was in some instances a falling off in dispensary attendance and in some instances an increase. I suppose that almost everybody here has had the experience of having physicians attending the dispensaries and not being paid for their services. Will the man take the interest in his dispensary that he ought to under these conditions? There is nothing that will so quickly run down a dispensary and nullify the work you have in mind to do as a physician who does not attend his dispensaries or attend his clinics. If we want to build up our dispensary work we must make it worth while for the physician to attend that dispensary. We can't expect men in these days to attend the dispensary without some compensation. Hospitals cannot pay the compensation out of their general funds at the present time, so it seems to me to resolve itself into a matter where proper charges must be made for that dispensary service. If we are going to charge for the dispensary service and are going to pay the physician for the service that he is giving there, what difference does it make whether the patient is financially able to pay or not? Because after all—I find it true in our particular district—

attending men are not going to be able to get around to all of the people who need medical care. More and more our dispensary is being visited by people who could well afford to have a physician come to the house; therefore, it seems to me that we must make a real and well worthwhile charge in our dispensaries. We should discriminate between those who are well able to pay, as Miss Catlin has so well pointed out, and those who are not so well able to pay, but all should pay a charge so that the attending man can be compensated for his services.

Dr. Joseph B. Howland, Boston: There are more ways than one of compensating a physician. I think we are distinctly coming to the time when we shall have to pay these men in dispensaries where there is no hope of advancement. If the out-patient department is part of a general hospital having a visiting physician in the house the physician who does his work well in the out-patient department may look forward to a reward in going up to the hospital, and that is just as valuable to a great many men as a few dollars. We have to think of compensation either in one way or the other. Men are not going to grind in the mill of the out-patient department without some distinct compensation.

Mr. D. D. Test, Philadelphia: Isn't it a fact that, as Dr. Warner said, the high-class ethical specialist doesn't want these cases and is very glad to have these paid clinics? The doctors who do want them are the men who are incompetent, the questionable specialists, the quacks, and it seems to me that therein lies a very important thought for us which bears out our contention that we should establish more and more of these clinics. The doctors who want these patients do not protect their patients or the community. Isn't it a part of our business as health administrators in our respective communities to try to lead these patients away from those doctors? We are not going to have any trouble with the ethical physicians.

Now, in regard to the pay clinics, we have what we call a salvarsan clinic, where we administer from fifty to seventy-five doses a week. We charge all the way from nothing to $5. We don't allow anyone, man, woman, or child, to escape who needs the treatment and who does not have the money, but those who are able and willing to pay more, support that clinic and pay the social worker, and to my mind the social worker is the most important part of the whole thing. When people get careless, she follows them up. She writes postcards to them, asks them to come back for their treatment, and goes to see them. Her work results both in the benefit that we are giving to our patients and the fact that we are able to support this clinic; it is gratifying to the physicians and the surgeons, to the community as well as to the medical staff, to every one excepting, perhaps, those men who ought to be put out of business.

Mr. Howard: I haven't heard until this meeting of combining a pay clinic with a free clinic, and I would like to ask the experience of some of the older pay clinics. Are these advisable or is it better to separate the pay clinic? Not only the clinic for venereal diseases, but any of the pay clinics?

Mr. J. J. Weber: I don't think that we have been faced with that problem, Mr. Chairman, in any very well-defined way; that is, we have not thus far faced the issue as to whether or not we shall have pay and free patients coming to the same clinic or whether we shall separate them. What is occurring in the Boston Dispensary, however, is this: We are having patients coming to our free clinic in the morning who, we find, through certain combinations of circumstances, can very well afford to come to the evening clinic; so far as they can, we urge them to come to the pay evening clinic. On the other hand, very frequently patients come into our evening pay clinic because they are occupied during the day, who cannot afford to pay an evening price and whose fee we remit either in whole or in part; sometimes we make them a loan which they pay back in installments during the period of their treatment; but we have not yet faced the question of establishing any clinic where both free and paid patients are treated at the same time.

Dr. Warner: The same problem will arise in every dispensary. There will be patients who can not come—they are working nights now—and what are you going to do? For various other reasons they couldn't come nights, and finally we found that we had to face that problem so that now a certain number of patients who are not properly charged are referred from the day clinic to the night clinic, and a certain number of patients who can properly pay are referred from the night clinic to the day clinic when they can not properly be expected to attend evenings. The determination of which clinic they belong in fundamentally is made absolutely on the financial condition of the family, and that is settled by the social worker. The day clinic is free and the night clinic is a pay clinic. Sometimes we decide from the nature of the trouble that it is a simple thing which the family doctor can and should attend to, and we refer the patient to him; but if the patient has something that the family doctor can not be expected to handle properly he sends the man to us. Thus the relations between the family doctor and the clinic soon become very pleasant. We have had only one source of trouble. The charge for salvarsan in the evening clinic is $5, and we have patients in the day clinic where the maximum charge is $3; the night patients have learned that the day patients pay only $3. Now, there have been several who have asked us if we could see any justice in that. They are perfectly willing to pay the 50-cent fee—they know they are pay patients and they pay cheerfully, and they pay for their medicines—but they do balk on that difference between $5 and $3. If the day patients were paying 50 cents for salvarsan, that would be all right; they would be all charity patients, and the night patients are not and they are proud of it, but they can't conceive of a $3 fee for salvarsan as charity—that must be on some other basis and is simply an unfair discrimination.

Dr. Wilson: Does the physician who examines and treats these patients know which patients pay and which do not?

Dr. Warner: That is on the card. They are two different clinics.

Dr. Wilson: Well, I suppose that is necessary for the records, but to a physician sick people are patients—money doesn't enter into consideration at all—and why should he wish any knowledge concerning the question of whether they are pay patients or are not?

Dr. Warner: He doesn't need to know. He is paid for the service he renders.

Mr. Howard: If the night clinic man is paid, what about the day clinic?

Dr. Warner: There are various ways of paying attendants. Our evening clinic has no connection with the university. It is purely a hospital matter. There is no promotion there, there is nothing but the work they do. They are paid proper fees for all they do. The day clinic is a part of the university, and the men all hold university appointments and they work for university preferment, which is ample payment and so regarded.

Blind Americans at Evergreen—Here They Are Taught to Read and Write, to Work and Play Again—The Red Cross Institute for the Blind Trains Assistants—The Government Will Help to Find Jobs for Them

Fig. 1. Evergreen General Hospital at Baltimore.

Fig. 2. Headquarters of the Red Cross activities for the blind.

Fig. 3. On the extensive lawns of this recreation field all kinds of outdoor sports may be enjoyed by the blind. The men are taught that systematic exercise is just as essential for the health of those who have lost their sight as for those who see.

Evergreen is described as an institution with a "double function; first that of a hospital for the men while they are in need of medical care; and second, a school in which they are fitted to 'carry on' in the battle of life in spite of blindness." The advice of experts in the education of the civil blind has been sought, and under their supervision a class of volunteer assistants has been provided by the Red Cross Institute for the Blind.

These men are taught to play as well as work. Dancing is the most popular pastime of all, though bowling, swimming (the sport in which their handicap counts for least) and many others are enthusiastically followed.

The first step in the rehabilitation is to teach the blind to use their fingers, and the handwork courses include weaving, basketry, netting, chair caning, and carpentry. The men may not wish to follow these occu-

Fig. 4. Library and reading room. Through the agency of Braille the blind have recourse to many books which are supplied in the Red Cross Institute Building. The "Cheer-up" volumes in which are found extracts from current literature are much appreciated.

Fig. 5. One of the airy, restful wards where the men can feel the sunshine. Blind men are keenly susceptible to the charm of their surroundings, which is as quickly perceptible to their quickened senses as to the eyes of other men, a fact never lost sight of at Evergreen.

Fig. 6. Through the lovely gardens of Evergreen the men delight to take their friends. This is the Elizabethan garden. The beauty of the place is important in winning the confidence of the soldier's family who sometimes hate to leave him in stranger's care.

Fig. 7. Bowling a favorite sport.

Fig. 8. The entrance hall serves also as a lounging room

Fig. 9. Operating a small switchboard is one means of livelihood open to the blind, which men at Evergreen are taking up. This method has already been tried out with success in civilian life among the blind and partially blind, and promises to be a popular occupation.

Fig. 10. Carpenters' tools teach the men much about the usefulness of their hands, and, though none of them may expect actually to become carpenters, the training in the management of their fingers and the use of instruments which they receive will be invaluable.

pations for their livelihood, but the training which is given is invaluable.

Every man, too, is taught to use a typewriter, and, through the medium of stylus and Braille-writer, to write Braille as well as read it. These subjects are required. Among the elective professional courses are massage, piano tuning and bookbinding. All other occupational courses will be under the direction of the Federal Board for Vocational Education, and cannot be undertaken until the required work is done.

Courses in industrial work are being planned. When an occupation seemingly suitable for the blind is found, a time-study motion picture is made of the most skilled man in the plant while he is actually engaged in his occupation. These pictures are the textbooks for Evergreen's "industrial" teachers.

The commercial world is probably the field most widely open to the blind, and there are being developed comprehensive courses in business economics, salesmanship, office management, the use of mechanical office equipment, and the principles of accounting and bookkeeping.

Fig. 12. The swimming pool.

Fig. 11. (Above.) In the popular dance hall. No form of recreation is more generally enjoyed by the blind.

Fig. 14. (Below.) Puzzles for finger training and for fun.

Fig. 13. Exercise in the gymnasium.

Fig. 15. Dictaphone operating useful to typewriters. It is obvious that for blind men, properly trained, the commercial world offers the most favorable opportunities, and a great deal of attention is being paid to preparing men for this line of work.

Fig. 16. Bookbinding affords valuable finger training, and it is possible that some of the men may find an opportunity to follow this occupation for a living. It has long been a favorite means of occupying the blind who frequently become very proficient.

Stress is laid upon the facts that "no trade is being considered where the economic advantages to both the employer and blind employee are not clearly manifest. In other words, efficiency is the watchword," and, with it these "brave blinded soldiers" move to victory.

THE SUPPLY OF PRACTICAL NURSES*

A One Year's Training Course and Lower Standards of Admission Will Increase the Supply of Nurses—Women Thus Trained Will Be Competent to Handle All But Special Cases

What's the matter with the trained nurse? A wave of harsh and resentful criticism of the professional nurse seems to be sweeping over the country. In spite of a recognition of her splendid achievement in remaking hospital nursing, and of setting up high standards for private nursing; in spite of her magnificent and sacrificial service in the great war, she is not now viewed by large numbers of physicians and laymen as a ministering angel of mercy or as an unmixed blessing. And when rebuked for these harsh expressions of disapproval, her unfeeling critics forcefully reply: "She is getting just what she deserves." What does it mean?

Is it because through high standards of admission to her schools, and long years of training before she is graduated, she has chosen to make herself one of a small body of the elect, a superior being? Is it because with the high cost of living and the scarcity of these chosen few she has, labor-union-like, demanded higher pay which only the well-to-do can give? Is it because in the home she is autocratic and unwilling to serve except in accordance with rules that she herself lays down, often demanding that service be rendered her and causing discord in the household management at a time of crisis? Is it because in many hospitals she has gradually acquired more influence and power until through her officials she speaks with authority even to the management, and dictatorially demands that before the interests of the medical staff are considered—sometimes even before the interests of the patients—there must be considered those of the nurses? Perhaps in this resentful criticism, narrow as it may be, the nurses are reaping what they have sown.

The war and the epidemic of influenza, with the consequent scarcity of nurses, have acutely drawn attention to the trained nurse and to the fact that she does not supply the suitable agent for ministering to the large body of the ill. The very poor may get free nursing in the hospitals or, if lucky, at their homes through charity; the rich can and will pay whatever may be demanded; but the large mass of people of moderate means, too self-respecting to accept charity, not able to pay the high price of the expert nurse, must be deprived of her services or secure them at what to these people is often a ruinous sacrifice. More than this: a nurse of the highly trained type is not necessary or even desirable in the vast majority of cases of illness.

What are the requirements of a capable, skilled nurse, a physician's assistant? First, a right personality; without this she is hopeless. Then intelligence, by which we mean a readiness of comprehension and understanding. Further, she should be of fair education, able to make herself understood, to write, to read, to reason. Lastly, she should have had training of sufficient length, probably one year, in a good hospital. This training should teach her the proper bed care of the ill, the preparation of food, the management of the patient—not his illness—and the methods of administering drugs and other remedial agents. She should learn enough of anatomy so that she will not, with her hypodermic syringe enter the brachial artery; she should know enough of symptomatology to sense the possible significance of blood in the stool or of abdominal pain in typhoid; she should know enough pathology so that she will not wilfully violate the physician's orders against massaging a thrombosed femoral vein; she should have enough theoretical and practical training in bacteriology so that aseptic methods are to her, through her grasp of the reasons underlying them, methods to be scrupulously followed.

It goes without saying that other things—personality, native intelligence, etc.—being equal, the college or high school graduate will grasp these facts more readily and will, to this extent, be the more competent nurse. But such super-knowledge is not necessary. For 90 percent of cases of illness, a skilled nurse with the characteristics just enumerated and with one year's training will answer fully as well and will fit into the average household better. She will be a true physician's assistant and will be a household helper not too proud to assist in the kitchen or even to help care for the baby. If this is true, why should not this capable woman of ordinary but sufficient ability and training be allowed to practice her profession licensed by the state and earning an honorable livelihood?

There is a place for the highly trained nurse, the registered nurse of today. From their ranks will come the superintendents of the training schools of various grades, the head nurses in our hospitals, the nurses in our operating rooms, nurses for cases of special severity or complication, and the teachers of nurses. Let the training schools preserve their high ideals, though there may be question as to the necessity or wisdom of requiring even a high school degree for admission or a three years' course of training except in special cases or for postgraduate work. For her own good let the nurse be a little less autocratic, a little less dictatorial, a little more human. *Non ministrari sed ministrare* is as good a motto for a training school as for a woman's college. The trained nurse from having been a luxury has become a public necessity, like the telephone and railroad. Should not methods less like those of selfish private ownership give way to those wherein service to the sick public is the paramount aim?

*Editorial from the Journal of the American Medical Association, January 25, 1919. See reply in the Department of Nursing of this issue of THE MODERN HOSPITAL, page 209.

Five Practical Economies

Conservation is something of a science at the New Jersey State Hospital, Greystone Park. It takes a scientist to see a source of revenue in a few bits of paper and dead leaves blowing about, an empty packing box, a few old rags, and a broken broom in the corner, yet how this revenue was realized is told in a recent issue of *The Psychogram*, which is published once a month in the print shop of the hospital where all the typographic work is done by patients.

Two immense baling presses, evolved by a patient with a mechanical turn of mind, make all the waste paper gathered from the premises into bales which are sold at the rate of forty tons a year.

Dead leaves are given to the swine, and pass through two stages of usefulness: first, as an excellent litter for the pigs, and second, as capital fertilizer for the soil.

Empty boxes are broken up, and the wood made into the backs of brushes—enough to supply the local demand and leave a considerable surplus for traffic.

New brooms are fitted to old broom handles by the patients, and here a considerable saving is effected by the hospital.

A textile department takes care of old rugs; they are cut into strips and made into carpets and all sorts of rugs, some very pretty, all useful.

DEPARTMENT OF NURSING

Conducted by ANNIE W. GOODRICH, Dean Army School of Nursing and CAROLYN E. GRAY, R.N.

Please address items of news and inquiries regarding Department of Nursing to CAROLYN E. GRAY, R.N., Principal, City Hospital School of Nursing, Blackwells Island New York.

AS OTHERS SEE US

Nurses Are Not Too Highly Trained—Hospitals Require Long Periods of Training for Their Own as Well as Nurse's Benefit—Nurses' Cooperative Social Work Requires Educational Background—Nursing Is a Profession in Itself and Deserves Professional Respect and Pay

The writer of a recent editorial in the *Journal of the American Medical Association*[1] refers to a "wave of harsh and resentful criticism of the professional nurse [which] seems to be sweeping the country," acknowledges "her splendid achievement in remaking hospital nursing and setting up high standards for private nursing," speaks of "her magnificent and sacrificial service in the great war," and yet goes on to state that in spite of this "she is not now viewed by large numbers of physicians and laymen as a ministering angel of mercy or as an unmixed blessing." He further tells us what is wrong with nurses in general, and what he deems to be the proper training for nurses to qualify them for the approval of the physician and the general public.

First of all, we are too highly educated. Our "high standards of admission" and "long years of training" have produced "a small body of the elect." Those of us who have struggled for many years to raise our standards of admission and who realize that lack of preliminary education has been one of our most serious stumbling blocks can not agree with this assumption. A study of the laws affecting schools of nursing will show that the standards of admission are woefully low. Having been a member of a state board of nurse examiners, I can only testify sadly that, in one state at least, a much higher standard is most desirable.

The requirements of the ideal nurse of our critic—one who shall be "a capable, skilled nurse, a physician's assistant"—are first, "a right personality, a readiness of comprehension and understanding, fair education." She must be "able to make herself understood, to write, to read, to reason." In addition to these qualifications, the writer would give her "a year's training in a good hospital."

She does not need the "super-knowledge" gained in high school or college. Yet after all, is it not rather a well-educated young woman who has been sketched? To be "able to reason" implies a good deal, as does "a right personality" and "readiness of comprehension." The only motive for setting a minimum educational standard for entrance to schools of nursing is to make sure that our applicants will have some of these qualities. The writer can not be very familiar with the finished product of our high schools if he thinks that the average high school graduate would measure up to his requirements. I am confident that many nursing schools would welcome large groups of women such as our critic describes, if only they were available; if any better way to judge of their fitness than by an educational standard can be devised, it will be equally welcome. Possibly the psychologists, with their various tests for vocational fitness, might be able to help us out in this dilemma, but these tests are expensive and would probably increase the training school budget. How well we know that the greatest crime a training school superintendent can possibly commit, is to increase her budget!

Many are beginning to feel that the long years of training (as well as the long hours on duty) can be reduced with no loss to the student nurse. In all too many instances the hospital and *not* the nurse benefits by the third year of training. Almost all hospitals dependent on nursing schools plan for a minimum number of graduates and a maximum number of pupils. Three years of training makes this possible, as only one-third of the pupils graduate each year. A shorter course of two years means that one-half the pupils graduate each year, and a course of one year would mean a complete change of pupils each year. Moreover, a decrease in the total length of training would be accompanied by a proportionate decrease in the length of time spent in each department, and an increase in the number of changes of personnel, to say nothing of the increased number of graduates who would be necessary to provide adequate supervision and give some degree of stability. Is there anything more calculated to rouse the ire of everyone connected with the hospital, from the head surgeon or physician to the friends of the poorest patient, than frequent changes of nurses? We are familiar now with the complaint that the changes are altogether too frequent even with a three years' course.

Any decrease in the length of training also calls for an increase in the number of applicants. We hear much of the shortage of applicants now. Would a shorter course attract a sufficient number to offset this?

In our experience the scarcity of physicians has been much more marked than the scarcity of nurses, particularly in regard to those rendering medical care to the poor, the great mass of our population. Why is it that the scarcity of physicians has been taken as an inevitable result of war conditions, while the shortage of nurses is laid at the door of the nursing schools? The remedy suggested is to overthrow our present system and substitute the familiar short course. To produce a large number of insufficiently trained nurses to meet this shortage is a temptation, but why overthrow machinery of which the product on the whole has been good? We hear nothing of the royal road to medicine via a short course, nor the plea that the "high standards of admission" are the cause of the shortage of physicians.

Secondly, it is stated that nurses, "labor-union-like," have demanded higher pay because of the "high cost of living and the scarcity of the chosen few." It seems perfectly reasonable that a nurse's pay should be advanced to meet the high cost of living. How else may she live? I believe it is also an economic law that prices are regulated by the supply and demand. During the epidemic, some nurses have charged $7.50, $10 or $12 a day to the rich, but what of the many who visited the poor and the families of moderate homes, who made as many visits as

[1] Editorial, "The Supply of Practical Nurses," January 25, 1919. The editorial is reprinted on page 208 of this issue.

the length of the day and the nature of their work permitted? These nurses receive the munificent compensation of $75 to $100 a month, out of which they must meet all their expenses. In New York the nursing organizations pooled their forces, and a Nurses' Emergency Council was organized to coordinate the nursing work. This was not true of the work of the physicians, five or six of whom made calls in a single tenement house in a period of three hours, while many sick persons in the same building were unable to secure medical attention. Our daily papers told us of poor mothers who swarmed about the automobiles of the doctors, begging them to visit their children. My tailor told me of his son, a physician, who made from forty to fifty visits a day during the epidemic. Would he have considered even the daily wage of the nurse-profiteer ($10 a day) a recompense for the danger to which she, far more than he, was subjected?

Thirdly, the nurse is "autocratic and unwilling to serve; demands personal service and causes discord in the household at a time of crisis." We are trying hard to break down the system of military discipline which still prevails to a large extent in our hospitals. Train a young woman (or man) in an autocratic atmosphere and you will produce either an autocrat or an extreme radical. The latter are not usually found in the ranks of private-duty nurses, and the writer evidently refers to the so-called "luxury nurse." She enters the household at a time of unusual distress, encounters servants who are terrified by sickness, especially if it is of a communicable nature, and who needs unusual tact to bring harmony out of such conditions. It hardly seems that less education or even shorter hospital training would remedy this.

Fourthly,—and here enters a note of personal grievance—the writer says, "In many hospitals she has gradually acquired more influence and power until through her officials she speaks with authority even to the management, and dictatorially demands that before the interests of the medical staff are considered, sometimes even before the interests of the patients, there must be considered those of the nurses."

Now again, why not? I was once speaking with a member of the board of trustees of one of our largest hospitals when the superintendent of nurses was referred to. I commented on the cooperation of the medical superintendent of that institution with the superintendent of the training school, and the member of the board replied, "But, of course, Dr. Blank recognizes that her position is equal to his own."

What the writer of the article under discussion does not seem to realize is the fact that nursing is of itself a profession, separate from medicine, though closely allied to it. Nursing has developed through nurses, always.

Our nurses in training pay and pay dearly for their nursing education by long hours of arduous work. Why should they not be considered and their needs recognized? It is a long time since Florence Nightingale established the first school of nursing and made the work attractive to educated women. Ever since, our "greatest foes have been those of our own household." Not all, but many physicians have cried out against the "over-trained nurse." And yet when these same physicians seek a woman for a particularly difficult position, it is to the so-called "over-trained" nurse that they turn.

Now we hear of "super-knowledge" in reference to the college or even the high school graduate. The popular nurse should be willing to "assist in the kitchen" or "help care for the baby." There is a very general demand for just such a group of women and many visiting nurse associations are adding houseworkers to their lists. We wish to call our critic's attention to the fact that nurses are not only willing that practical nurses be "licensed by the state," but that in New York State they are sponsoring a bill for just that purpose. A few hospitals stand ready to train attendants if only the applicants would appear. The Y. W. C. A. and the Red Cross give excellent courses in home nursing.

The spirit of the times is away from the traditional family doctor and family nurse. This our friend touches upon in his closing paragraph, to which we give hearty assent. By all means, let us have the socialization of the nurse. Tradition has led her footsteps into the familiar path of private duty, but she is learning the newer and infinitely more satisfying way of community service. When the socialization of the physician has progressed as far as that of the nurse, he will have a broader conception of her usefulness than he has today, and will then realize that she needs the most liberal education and training to fit her for her profession—a profession which is separate and distinct from his own, although the two are mutually dependent.

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OCCUPATIONAL THERAPY AND THE TRAINED NURSE*

Ward Occupations, Curative Workshops, and Reeducation Schools Are Three Consecutive Steps—Special Training Essential for Occupational Nurse

By ELIZABETH G. UPHAM, Advisor in Occupational Therapy, Milwaukee-Downer College, Milwaukee.

So great has been the progress in hospitalization in the past years that it would seem as if no phase of hospital activity which could contribute to human welfare has been neglected, and yet the great war has every day shown that more is needed, if nursing and surgery are to restore the victims of war to usefulness and independence.

How may the great miracle of reclamation be brought about? What is needed besides nursing and medicine to convert broken and wasted men into useful and happy citizens? The answer is training. But it is not enough to delay the training until the patient is able to attend a reeducational school. Every country has learned that it is too late to start training after the men are dismissed from the hospital. The long days of convalescence have taught them the habit of idleness. They will not readjust themselves. They are apt to take one of the two attitudes, "I have done my bit" or "I am no good." Thus it was found that if the men were to be trained they must be given occupation early in hospital life, before the habit of idleness has formed. Occupation teaches them that they still have another bit to do, and that they are useful.

The process of rehabilitation has three distinct stages: first, the ward occupations, at which stage the patient makes first efforts to use his hands and mind while he is still in bed or unable to leave the ward; second, the curative workshop training, when the patient is able to be about and take definite exercise, and to work for stated periods each day; third, the reeducation school, to which the patient goes after discharge from the hospital.

These three steps should be made links in a consecutive system which leads the disabled man from his first efforts in the ward through training to a permanent calling. Thus the occupation should be made to be useful to the patient from the very first, and to fit him for his future vocation. In the ward a typewriter, besides exercising stiffened fingers, can prepare a man for a business course. Metal crafts can initiate another into mechanics at the

*Read before the Convention of Wisconsin Trained Nurses, Milwaukee, October 1 and 2, 1918.

same time they are affording him diversion and exercise, and a future foreman can begin his training by learning mechanical drawing in bed. The workshops and reeducational schools carry on the courses thus begun in the ward.

Ward occupation, or that phase of reeducation which begins in the hospital, is of particular interest to the nurse. Occupation at this time is more than educational—it is therapeutical; hence its name, "occupational therapy," the science of healing by an occupation. The thought of occupational therapy is not new to the nurse. She has known that contentment and optimism have helped many a patient to recovery, just as discouragement and fretfulness have impeded the progress of others. With the limited resources at her command, she has tried to entertain, amuse, and occupy her patients. She has read aloud, played games, cut out pictures for children, and found fancy-work for women. She has found it more difficult to find occupation for sick men.

While the knowledge that occupation in the wards is a science of actual therapeutic and educational value has been an outgrowth of the war just as much as the great advance in surgery, orthopedics, and the care of infection, its usefulness is by no means confined to military hospitals. It is more and more being considered as much a part of the routine of civilian hospitals as massage, hydrotherapy, and electrotherapy. The doctor frequently gives a work prescription.

An actual technic has developed in the directing of ward occupations, for occupation is no longer looked upon as negatively time-killing and left to the ingenuity of the teacher. The patient is studied, and his mental and physical abnormalities noted. The occupation is then selected which will tend to normalize the mental complications and produce the desired exercise for the physical limitations. This occupation is in the hands of one especially trained and skilled in its administration.

Among the mental complications commonly seen are ennui, melancholia, discouragement, fear, morbid introspection, restlessness, elation, and excitement. It is obvious that these different mental states cannot be treated by the same occupation any more than by the same drug. An occupation with a stimulating reaction must be given to the patient affected with ennui. The patient with melancholia is particularly liable to fatigue, and must have simple, cheerful work. The discouraged must be given tasks that he can readily master, and whose accomplishment brings about self-confidence. The introspective, apprehensive, or depressed patient must have an occupation demanding considerable concentration in order to keep his mind from brooding and fears. An occupation of a sedative and relaxing type will reduce restlessness and nervousness.

The mechanism of mental recovery by occupation is simple. Only one idea can occupy the patient's attention at a time. The content of that idea is the first responsibility of the occupational therapeutist. Every idea or sensation has a natural desire to express itself, and the direction of that expression is her second duty. In healthy minds, volition precedes action, and disordered minds may be normalized if volition can be born, and action and decision made clear and enforced. Volition may be helped by the selection of the right occupation; and the patient's least thought, desire, or idea must be the starting point. By careful direction, action follows, and fatigue, doubt, indecision, or lack of interest must not be allowed to prevent its logical execution. The mental poise, control, optimism, and activity thus acquired react favorably upon the entire body, and facilitate recovery by inducing sleep and assimilation. These, in turn, assist in such functions of life as nourishment, production of digestive juices, and the cycle of metabolism.

Physical recovery is measured by growing muscular power, coordination, and resistance to fatigue. These can not be acquired suddenly, but are best developed by carefully graduated activity. Finger, hand, arm and shoulder movements may all be developed in bed. Each of these is dependent upon the occupation selected. Thus typewriting, metal carving, and fine raffia work may develop skill and exercise the fingers. A tint loom whose shuttle must actually be woven in and out produces wrist movements, while drawing, metal sawing, or throwing the shuttle on large bed looms exercises the arms, and large reed baskets require shoulder movements.

Occupational therapy and active exercise are taking the place of mechanotherapeutics and passive exercises as soon as the patient is able to initiate movement. In all countries purposeful exercise has been found the expedient way to cure weakened muscles and stiffened joints.

Occupation is invaluable as a therapeutic agent in all cases of long convalescence. Dr. Frederick Brush says of his occupational treatment of convalescents at the Burke Foundation: "One soon learns that convalescence at best is fully half mental. Our occupation is considered not chiefly diversional, but remedial, reconstructive, curative, convalescent, normalizing. It is not a side issue; it costs; it is our best medicine. It is prescribed, in writing, for more than one-fourth cardiacs, hyperthyroids, choreics, all the border mental and nerve folks, the inherently restless, all long stayers, the temperamentally difficult, the quitters, the pampered, the disheartened."

In order to make occupation therapeutic in its fullest sense, and educational in preparing the patient for his wage-earning vocation, it is necessary that it be directed by those especially trained for this service. There are several schools preparing women for this profession. The school provides a medical background for the student, supervises her contact with the patients, and trains her in a large variety of crafts and occupations. The training course covers a period varying from three months to four years, depending upon the student's entrance qualifications, her knowledge of medicine, crafts, occupations, educational subjects, and her teaching experience. A fundamental point in the training of occupational aides is that they must have judgment in the selection of the occupation, and in the method of developing it; and if it is begun as a diversion, they must know when to convert it into a purposeful occupation which develops regular habits of work.

Ward occupations should not be judged alone by the quantity and quality of output. Their merit in the hospital lies chiefly in their therapeutic values, and they must be considered primarily as they improve the patient's mental and physical condition. The teacher of ward occupations must have vision in order to make the instruction of permanent value to the patient. Convalescence, instead of being a long, irksome period, may be made productive and of lasting value if the patient leaves the hospital not only cured, but with new resources, steady mental habits, the purpose to work, and education to advance his position.

The trained nurse has a definite relation to this service. She comes in close contact with ward occupations. She sees the patient before and after his treatments, she charts his physical condition. While the doctor must be the one to determine the effect of the occupation and give the instructions, the cooperation and undertaking of the nurse is essential for the best results. There must be a spirit

of mutual good will and understanding between the nurses and the aides. On the one hand, occupational therapy must not be looked upon by the nurse as an intrusion, an unnecessary and wilful means of littering up her tidy wards. It is not a fad. Its value as a therapeutic agent and as a means of inspiriting the patients has been tried and proved. On the other hand, the occupational aide must not impose upon the indulgence of the nurse, but take every care to fit smoothly into the legitimate and established routine of the ward.

There has grown a new conception of the service of the hospital to its community. No longer will it be content to pass heedlessly out of its doors those who are through with treatment. Its occupational therapy, social service, and out-patient departments have all been working with the medical, nursing, and administrative staff, not only to make possible physical cure, but to direct that cure to a worth while end. The hospital should be looked upon as a great training school not only for its doctors and nurses, but for its patients, and for the community it serves. The patient should leave the hospital with a knowledge of personal hygiene and of public health and responsibility. He should be better able to take care of himself, and more helpful to others for his hospital experience. He should be animated by a new purpose and desire to live and serve, and, if convalescence has been long, he should take with him new resources, new interests, and better educational equipment with which to earn his living.

"The time has come when prevention of diseases looms larger than the cure; and in this field the hospital must show the way again by the aid of the sciences and the arts, directed along the lines of hygiene, sanitation, pure living, and right thinking."[1]

This can be accomplished only as each department within the hospital works in cooperation with every other. It can be accomplished only as each individual appreciates the work of others, is conscientious in her own work, and feels herself a part of the big vision and ideal.

It is for this reason that the appreciation and understanding of occupational therapy on the part of the nurse is necessary. The private nurse who has not these hospital contacts to aid her has to have all these resources within herself, and as she understands the value of occupation she has a new means with which she may serve her patients.

* * * *

A Valuable Textbook on Home Care of the Sick

The American Red Cross textbook on "Home Hygiene and the Care of the Sick" has been entirely revised and rewritten by a no less able authority than Miss Anne Hervey Strong, R.N., professor of Public Health Nursing at Simmons College, Boston.

It is of particular interest that this book, originally prepared by foremost women in the training school world, should now represent the additional experience of one whose "hospital" is the community and whose acquaintance, therefore, with the home need is intimate and constant.

Examining this book, one is soon made aware of the fact that although its purpose is definitely to enable the homekeeper to give intelligent care to the members of her family when highly trained assistance is unavailable, its subject matter is scientifically correct. In fact, much of it could be used to advantage in our schools of nursing, particularly the reviews, given at the close of the chapters and at the end of the book.

[1] "Salutatory," THE MODERN HOSPITAL, September, 1913, I, 32.

The bibliographies following each chapter are exceptionally good.

The chapter on "Causes and Prevention of Sickness," brings out clearly that prevention is the slogan of today—that "we serve best by preventing sickness." Non-communicable diseases are shown to be of even greater importance to the public health worker than the large group of communicable diseases—and this because, while in the latter group there has been a marked falling off in the last forty years, the first group has a death-rate which is actually increasing.

How many know that premature old age occurs among "a vast number of people, in various classes of society and various occupations—that the vital organs show a marked tendency to break down after the age of forty-five?"

Miss Strong shows that this is not inevitable and that degenerative changes can be checked or prevented to a large extent, and she states plainly their causes. The first can be summed up in one word, poverty, or possibly its reverse, wealth. "Conditions of life which result in continued overwork, and mental overwork, in particular; worry, excitement, insufficient recreation, and exercise, and other kinds of nervous strain typical of modern life." The second class of causes of premature decay are "irritating substances in the body," which may result from infectious diseases, occupational poisons, improper eating, etc.

The value of periodic examinations of adults, as well as of children, is emphasized, and the chapter ends with the responsibility of the mother to teach correct hygienic habits and thus prevent many cases of degenerative as well as of communicable diseases.

Many old superstitions are exposed and fumigation is discussed from the modern scientific viewpoint. Satisfactory sterilization is described.

This book will be of great value in the education of the public, and it should not be neglected in our schools, lest our trained nurses find themselves in the position of learners when they go into up-to-date homes.

American Red Cross Textbook on Home Hygiene and Care of the Sick. By Jane A. Delano, R.N., Chairman of the National Committee, Red Cross Nursing Service; Director Department of Nursing, American Red Cross; and late superintendent of the Nurse Corps, U.S.A. Paper, pp. 318, 34 illustrations, 60 cents. P. Blakiston's Son & Co., Philadelphia, 1918.

* * * *

Meeting of Nursing Organizations in New York

Meetings of the directors and committees of the American Nurses' Association, of the directors and committees of the National League of Nursing Education, and of the board of directors of the *American Journal of Nursing* were held in New York, January 15 to 18, 1919.

The stockholders of the *American Journal of Nursing* accepted with regret the resignation of Miss Clara D. Noyes, president of the board of directors, who felt unable to occupy this position in addition to her position as president of the American Nurses' Association. Miss Sarah E. Sly of Michigan was chosen president of the board, and Miss Anna C. Jamme was appointed a member.

It is regretted that, owing to lack of funds, the work of the interstate secretary will be discontinued late in the summer when the present term is ended.

As many other scholarships are available for public health nurses, it was voted to award most of the Robb scholarships to applicants who wish to prepare themselves for teaching or for executive positions in the training schools.

DEPARTMENT OF DIETETICS

Conducted by LULU GRAVES

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Home Economics Building, Cornell University, Ithaca, N. Y.

DEPARTMENT OF DIETETICS IN THE UNIVERSITY OF MINNESOTA HOSPITAL

Valuable Experiences in Diet Laboratory for Student Dietitians and Student Nurses—Course Includes Sixteen Hours of Theory, Forty-Eight of Practical Work, and a Six-Hour Course on Diets in Disease

By GERTRUDE THOMAS, Head of the Department of Dietetics, University of Minnesota, Minneapolis

The dietitian has charge of the "food interests" and the household management of the hospital. Under the former comes planning and ordering the food for all meals served in the hospital; supervising the preparation and service; teaching classes in both theoretical and practical dietetics for student nurses, an occasional course for medical students and, during the past year, classes of hospital corpsmen for the navy.

Under household management comes the employment and management of employees, supervision of the housekeeping of hospital and nurses' dormitories, and supervision of laundry.

There are two student dietitians who come for a period of four months. The first two months are spent in the diet laboratory preparing and calculating the special diets, and the last two in the dietitian's office for experience in hospital management.

The experience in the diet laboratory is valuable to both the student dietitian and the student nurse. They exchange ideas, and while the student dietitian, who is usually a recent graduate from some school of domestic science, is absorbing hospital ethics and becoming accustomed to hospital routine, she is giving the student nurse the benefit of her knowledge of cookery and reaching her from a different angle than the instructor has. In addition to this, the fact that the special diets are being worked out for real patients and not as problems lends a vital interest to the work; these people follow their patients closely to watch the effect of the dietetic treatment, which in some disorders is the most powerful weapon that can be wielded.

The Joslin-Allen treatment of diabetes is used, the Sippy diet for gastric ulcer, and other routine diets such as low protein, cardiac, constipation, etc., besides the various test meals.

The diet laboratory is responsible for only the special diets. The food for the remainder of the trays is sent from the general kitchen to the diet kitchens on the floors. The head nurse on each floor arranges for one student nurse to take charge of the sending out of the trays. This is done according to a chart which indicates the character of the patient's diet.

The cards with the patient's name and the card indicating the type of diet are fastened in with clips so that they are easily changed. This system does away with confusion at tray time, and the trays go out very quickly. The dietitian makes rounds at tray time of both the diet kitchens and wards.

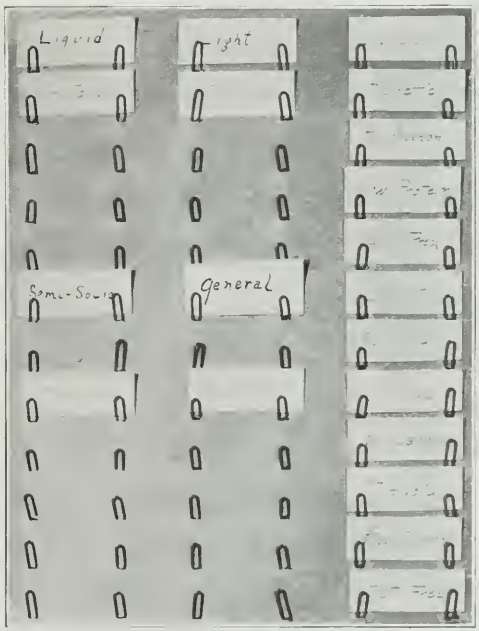
All menus are planned by the dietitian and the food ordered each morning. The purchasing agent of the university makes arrangements with various firms to supply all dining rooms on the campus for certain periods of time; so the dietitian has only to place the daily order for meat with the cold storage department and for milk and bread with some firm indicated, while the hospital steward orders canned and staple goods from the main university store house and fresh fruit and green vegetables from the wholesale house. The steward has charge of a small store room.

The course in dietetics for the nurses is covered by sixteen hours of theory, which they take while they are preliminary students in the university. Following this, forty-eight hours of practical work is given when these students enter the hospital as probationers. Added to these classes, which are held by the dietitian, are six hours on Diet in Disease, given by one of the doctors who is especially interested in this subject.

An outline of the work covered is as follows:

THEORETICAL DIETETICS

1. Definition of Dietetics, Food, Food Adjuncts, Conditions for Perfect Nutrition, Composition of the Body, Composition of Food, Classification of Food According to Five Food Principles, Heat and Energy Metabolism.
2. Digestion. The Four Processes by Which the Body Makes Use of Food.
3. Water. Occurrence in Body, Use in Body, Amount Required by Body, Dietetic Uses of Water, Kinds and Sources of Water, Purity, Care of Water in the House.
4. Mineral Salts. Occurrence in Body, Use in Body, Forms in Which Found, Sources in Food, Dietetic Uses of Minerals.



This simple, home-made chart keeps track of the special diets, etc. The little white cards are slipped in behind clips inserted in brown paper with a linen backing. The "guide" cards, General, Light, Liquid, and Semi-Solid are yellow, blue, red, and green respectively.

5. Carbohydrates. Definition, Sources, Classification, Study of Each Group of Carbohydrates, Sugar, Sugar Substitutes, Starch and Cellulose, Vegetable Foods, Classification, Cookery of Starch, Cereals and Vegetables.
6. Fats and Oils, Forms of Fat Used, Uses of Fat to the Body, Digestion, Saponification, Dietetic Uses.
7. Proteins, Composition, Sources, Forms, Tests for Protein, Characteristics, Fermentation, Uses to the Body, Dietetic Uses, Digestion.
8-9-10. The Caloric Value of Food, Amount of Heat Produced by Various Foods, Daily Caloric Requirement for the Individual, Factors Controlling the Caloric Requirement, The Balanced Ration, Weights and Rations of Food, Table of Caloric Values.
11. Diet in Health, Diet as Adapted to the Various Periods of Life.
12. Classification of Hospital Diet, The Convalescent Tray.
13. Preservation of Food.
14. Trip to Flour Mill.
15. Trip to Meat Market.
16. Review.

PRACTICAL DIETETICS

1. Preparation of Food, Methods of Cooking, Care of Food, Food as a Vehicle of Infection, Care of Utensils, Sink and Refrigerator, Beverages.
2. Cream Sauce Preparations.
3. Eggs.
4. Cream Soups.
5. Milk.
6. Cereals.
7. Vegetables.
8. Service of Fruits.
9. Study of Fats—Bacon, Chocolate, etc.
10. Gelatine.
11. Salads.
12. Frozen Mixtures.
13. Desserts.
14. Breads.
15. Lesson on Menu-Writing.
16. Cake.
17. Fish.
18. Cookery of Small Cuts of Meat.
19. Cookery of Large Cuts of Meat.
20. Fowl—Squab.
21. Table Setting, Service of a Meal.
22. Diabetic Cookery.
23. Review.
24. Demonstration.

In the course for the hospital corpsmen for the navy, the aim is to give a course sufficiently practical to enable them to prepare simple trays for their patients in "sick bay," with some theory to establish general rules for the preparation and selection of food for the sick. This is given in six classes of one and one-half hours each. The first class period is devoted to theory entirely. A general introduction to the subject is given touching on some of the problems which enter into the dietary in disease. The second lesson acquaints the men with the "mess gear" of the laboratory, and some work in liquid diet is done. This is continued in the third lesson; in the fourth, semisolids are prepared; light diets are studied in the fifth, and a general tray in the sixth.

The corpsmen seem to enjoy the work (after the first lesson) and take hold very well. Many amusing questions are asked. During a written lesson the question, "What is the effect of heat on CHO?" was written on the board. After a puzzled pause one ventured to inquire, "Haven't you forgotten the W?" chow being a more friendly term to a sailor than carbohydrates. It takes considerable drill to bring out the importance of service. To repeated suggestions that service impairs or enhances the esthetic value of food, the sailor boy answers, "Well, he's in the navy now," which seems to be sufficient reason for serving the sherbet in the freezer, the coffee in a measuring cup, or a coddled egg in a double boiler. However, as the work goes on, a regard for the niceties of service is developed, and when the course is complete the imaginary patients are receiving perfect service.

The course for the medical students is an elective in the medical school, and the number of students selecting this work is steadily increasing. The classes are two and one-half hours long, one of the doctors in the medical school holding an hour of theory after which the dietitian takes the class for the remainder of the time for practical work. The theoretical work deals with the general principles governing the dietary in both health and disease, while the practical work covers selection, preparation and service of simple foods.

The classes in practical dietetics are held in a classroom apart from the diet laboratory. This arrangement was necessary, owing to the fact that classes and trays were found to conflict. This makes it possible to hold classes regardless of the service of trays and is a much more satisfactory arrangement.

DISHWASHING IN RELATION TO THE TRANSFER OF DISEASE

Experiments Show the Importance of Soap and Boiling Water—Bacteria Survive for Many Hours.

By RENA S. ECKMAN, M.A., Teachers College, Columbia University, New York City

The question of dishwashing in small institutions, cafeterias, ice cream parlors, and soda fountains, where dishwashing machines and a plentiful supply of boiling water are not always available, often causes uneasiness to the onlooker. Such places might readily be considered foci for the spread of disease, should a carrier of one or more of the mouth-borne infections seek refreshment there and leave dangerous germs on the dishes and silver. Even large institutions often have the silver, glassware, and fine china washed by hand.

It seemed worth while to make some tests of the survival of bacteria when subjected to different methods of dishwashing.

The plan was (1) to put a smear of a known organism on the dishes; (2) to wash the dishes by several different methods; (3) to swab the infected area after washing; and (4) to cultivate the possible organisms obtained in order to get back the same variety of bacteria used in the original smear.

To reduce the amount of work, an organism was selected the presence of which could be demonstrated without the use of the microscope. *Bacillus prodigiosus*, a nonpathogenic bacillus, fulfills this requirement, as it produces red pigment while growing. It is not commonly found on food. If, after the dishes were washed, the survival of this organism could be demonstrated, the meaning would be plain and the mode of dishwashing judged ineffective and therefore dangerous to the health of the public.

A broth culture of the organism, *Bacillus prodigiosus*, was used. Swabs were made by winding a little cotton around the point of a slender stick. Each swab was put into an empty test tube, the tube plugged with cotton, and the whole collection sterilized. A swab was used to place a smear of the culture on a marked area of twenty-four small saucers. After these had stood a few minutes, the process of washing began.

Three infected dishes and a dish without any infection (for control) were washed by each method. The marked area was then swabbed and the swab transferred to a tube of sterile nutrient broth. The methods used in washing are given below. Except in Nos. 1, 2, and 8, the water used was at 50 degrees centigrade or 122 degrees Fahrenheit. Soapy water was used in every case except Nos. 1, 2, and 7. Six applications of the dish mop or dish cloth or six immersions of the dish were made, the idea being to provide a standard for judging each method. In every case a control dish was washed in the same way as the infected dishes.

The methods used were as follows: (1) each dish was dipped separately in and out of cold water and drained; (2) this was the same as (1), except that boiling water was used; (3) the dishes were washed with dish mop, rinsed, and drained; (4) washed with dish mop, dried with towel; no rinsing; (5) washed with cloth,

rinsed, and dried with towel; (6) washed with cloth, dried with towel; no rinsing; (7) washed with cloth, no soap, rinsed, and drained; (8) washed with small brush, rinsed under small stream of water, and drained; soap was used with the brush, but as it happened, the water obtainable for this process was only 40 degrees centigrade or 102 degrees Fahrenheit.

This experiment showed the following results: In 1 there was no growth in the control tube, but growth in all three cultures from dishes; in 2 there was no growth in any tube; in 3 there was no growth in the control tube, but growth in one out of three cultures; in 4 there was no growth in the control, but growth in one out of three cultures; in 5 and 6 there was no growth in any tube; in 7 there was no growth in the control, but growth in one out of three cultures; in 8 there was no growth in the control tube, but growth in all three cultures.

It is obvious from the experiments that cold water does not remove bacteria from dishes. A dish cloth seems to be more effective than a dish mop. Water without soap does not do so well as water with soap. In No. 8 the lower temperature of the water made the process ineffective. This experiment was duplicated by Miss Nellie F. Rowe with the same results.

Miss M. B. Scotland, in a similar experiment in our laboratory, demonstrated the survival of bacteria after drying on silverware for four or five hours. In forty-two cases, every culture showed growth. This would indicate that dishes and silver incompletely washed after one meal may not be safe to use at the following meal. In restaurants, soda water stands, etc., the intervals are so short that the effects of drying are negligible, and the method of washing is most important.

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Report of the Meeting of the Executive Committee of the Dietetic Association in New York City

A meeting of the executive committee of the American Dietetic Association was held at the McAlpin Hotel, New York City, Tuesday, January 22, 1919. The committee decided to accept the invitation of the American Hospital Association to hold our next annual meeting in conjunction with theirs in Cincinnati, September 8-12, 1919.

The program will be a most instructive and interesting one, the commercial exhibits will be educational, and the opportunity to meet superintendents of hospitals will be valuable. Every dietitian should realize that she cannot afford to miss this opportunity to become acquainted with other dietitians. To know of the work being done in other dietary departments and of the way in which it is being done cannot fail to be helpful in one's own department.

In the past two years the attention given to the subjects in which we are interested has been such that more rapid development and greater changes have been made than would probably have been brought about in ten years in normal times. The annual meeting of the American Dietetic Association is the place to learn of these changes in more detail than can be done in reading of them, and to get the benefit of discussions from differing viewpoints.

The location of Cincinnati is such that dietitians from both the east and the west can reach it without great inconvenience. The meetings are to be held at the Gibson Hotel. The managers of this hotel assure us that ample accommodation for the meetings will be provided, and every possible comfort for the members.

Following the meeting of the executive committee, a meeting of the membership committee was called. Action was taken upon all applications in the hands of the secretary at that time. Accepted members are notified by the secretary, after which dues should be paid to the treasurer, Emma Smedley, Department School Luncheons, 1425 Brandywine Street, Philadelphia. Others desiring to become members are requested to send in their application at once to the secretary, E. M. Geraghty, New Haven Hospital, New Haven, Conn.

For the benefit of those not familiar with the by-laws we insert Article I, which refers to membership:

ARTICLE I

MEMBERSHIP: There shall be one class of membership, viz: active.

Section 1: Persons eligible to active membership shall be:

(a) Graduates of at least a two-year course in Home Economics from a recognized school.

(b) Graduates of a one-year course in Home Economics (prior to June, 1917), who, following graduation, have had one year of successful experience in dietetic work.

(c) Research workers who have contributed to the advancement of dietetics.

(d) Practicing physicians in good standing.

(e) Persons whose special work is allied with dietetics.

Section 2: Application for membership shall be presented in writing, to the Corresponding Secretary and shall be endorsed by at least one member.

Section 3: Membership shall cease upon non-payment of dues only after written notice from the Corresponding Secretary.

The annual dues are $2.

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NEWS NOTES OF DIETITIANS

Friends of Mrs. N. M. Wood, dietitian at the Methodist Hospital, Omaha, Neb., are glad to know that she was able to return to her department in January. Mrs. Wood has been ill for about three months. During this time the work was carried on by her assistant, Miss Mabel Brown.

Miss Eleanor Wells, lecturer at Teachers College and St. Luke's Hospital, New York City, suffered a very severe attack of influenza. Miss Wells has not yet sufficiently recovered her strength to resume her duties, but is spending some time in the mountains while convalescing.

On Monday evening, January 13, the Philadelphia League of Nursing Education, composed of the heads of training schools, invited the dietitians to their meeting, and the "Problems of the Dietitian" were discussed. Miss Gilson, dietitian of Pennsylvania Hospital, read a paper. Another paper was read by Miss McAllister, dietitian, Norristown State Hospital for the Insane. They were most interesting, as was also the discussion which followed. The idea was to bring the dietitian and the directress of nurses or superintendent in many places together, for, as Miss Clayton, from Blockley Hospital, said, "Difficulties usually arise from misunderstanding; therefore, let us understand one another."

Three Ways to Save in the Kitchen

(1) Of necessity, hospitals have to use a large amount of canned goods, and therefore the superintendent or housekeeper should watch the cans as they are emptied. You will be surprised at the large amount of syrup and juices that are left in the cans and wasted. This is also true of milk cans. See that all cans are well drained. This can be done if they are properly opened.

(2) Use up your stale bread. Use one-fourth stale bread to three-fourths meat in making meat balls. Stale bread can also be used in veal loaf, bread pudding, dressing for fowls, and in other ways.

(3) You can save money on potatoes by serving them so far as possible boiled with the jacket on—the old-fashioned way.

HEALTH AND MODERN INDUSTRY

Conducted by BARROW B. LYONS
Superintendent Delaware Hospital. Wilmington, Del.

A GREAT ADVENTURE IN HUMAN SERVICE

What the Newly Created Division of Industrial Hygiene and Medicine of the United States Labor Department Is Trying to Accomplish for American Industry

The days of great adventure never have ceased, but the days of greatest adventure we are now living in. The great men of tomorrow will be the men who today are embarking upon new adventures to help the human race readjust itself to the great laws of nature and of the universe, the men who are giving up personal fortune that they may gain the satisfaction of creating a better world in which to live.

Among the greatest of the great adventures which are being organized today is the project planned by the Division of Industrial Hygiene and Medicine of the Working Conditions Service of the United States Labor Department. This branch of the Labor Department is planning to help the great masses of the workers in our country to live more natural and healthy lives. It will help the workers, who number over thirty millions, to guard against disease in the shop and in the home, to lessen fatigue which wears down the body and dulls the mind, and to live longer and enjoy life more fully; and, if the venture prospers, as it shows many signs of doing, the influence of the work will extend far beyond the ranks of the working people and into every fiber of the social structure.

For many, many years industry, which has created the highly complex civilization of today, has crushed and warped the human cogs in the machinery. Low wages, the unending monotony of work, the speeding-up and hours of over-time, inadequate ventilation of working places, poor illumination, excessive humidity in some factories, harmful dusts or gases in others, industrial poisons, inadequate sewage and waste disposal, inadequate toilet and washing facilities, unsafe drinking water in many plants, workroom congestion, poorly adapted workroom clothing, and lack of mechanical safeguards to dangerous machinery—all have tended to destroy the life and happiness which the very processes of industry were supposed to promote. This is the paradox of modern industry and of the lop-sided civilization which it has produced.

And now, the paradox is becoming apparent and men are becoming ashamed of the crimes against humanity which the stupidity of the past has engendered. The most intelligent employers are beginning to realize that it is actually to their advantage to protect the health of the men and women who are working for them.

It is this changing frame of mind that has made it possible for the little group of men in the Division of Industrial Hygiene and Medicine at Washington to engage, with the backing of the government of the United States, in the great adventure which they have undertaken. The tremendous scope of the work is succinctly summed up by Dr. A. J. Lanza, chief of this newly created division. Dr. Lanza says:

"The functions of the division of Industrial Hygiene and Medicine of the Working Conditions Service are to conduct researches into the hygienic conditions in industrial plants in general; to make researches into specific occupational diseases and hazards, determining cause, effects and methods of prevention. These two functions are carried on by the Research Division, maintaining field offices in New York, Philadelphia, Pittsburgh, Cleveland, St. Louis, and Chicago.

"The division furnishes service also to industries by helping in the installation and standardization of systems of medical and surgical relief in government-owned and privately-owned plants, and in standardizing records and reports in plants.

"The service also maintains a register of industrial physicians, sanitarians, and nurses for the benefit of employers. The service also undertakes educational work in encouraging the presenting of papers at conferences of industrial surgeons and physicians, and for publication, and by preparing reports and statistics for the information of employers, employees and the general public."

This modest statement grows in magnitude when the tremendous field for its application is considered.

The register for industrial physicians and sanitarians is one of the most immediately important of activities of the new Division. Industrial concerns are looking for men qualified to take over the responsibility of keeping their employees in the best health, and young physicians are looking for such responsibilities; but these plants and the qualified men are as yet so few and far between that it has been difficult for them to make connections. The register, which now contains over one hundred names of men seeking to do this work, should prove of much assistance to both the progressive manufacturer and the interested physician.

Requests from industrial concerns for assistance in organizing health departments or in studying health conditions in their plants are coming in faster than the newly created division can handle them. The field offices of the Research Division in six important cities have been overwhelmed with work.

It is aimed to make each one of these research stations a complete unit headed by a field director. Under him will be several industrial physicians, a sanitarian, a chemical engineer, and an illuminating engineer, together with their necessary assistants. Up to the present time requests for advice have come mainly from employers, but there have been requests from labor unions asking for an investigation from the health standpoint of the conditions under which their members are working. The functions of the Research Branch are briefly outlined by its chief officer, Dr. Bernard J. Newman, as follows:

1. Research into working conditions for the ascertainment of those which are unfavorable to health and safety.
2. Research into housing and sanitary conditions in and surrounding the homes of workers in relation to their health and industrial efficiency.
3. Recommendations for their correction.
4. Determination of ways and means for their correction.
5. Research into working conditions suspected of being unfavorable to health.
6. Procurement of data for formulation of standards.
7. Determination of educational service to employers and employees.

In effecting practical reforms, the Divisions of Industrial Hygiene and Medicine can assume no arbitrary authority over local public health officials, but must always work with and through local officials. The educational

task which it faces seems colossal when it is considered that New York City is the only important city in the United States that has established a division of industrial hygiene under its local board of health and that there are still only a few states in the Union which have similar bureaus.

Before a plan for general education can be considered, however, it has been thought wise to educate men who will be able to carry on the work when the public realizes its value. Consequently, Dr. C. D. Selby, who heads the Education and Personnel Branch of the service, is preparing standardized courses of instruction for industrial physicians. He is working closely in accord with the men now conducting courses in industrial medicine and surgery which are being given at Harvard University, the University of Pennsylvania, Yale University, Ohio State University, Baylor University, Marquette University, and Boston University.

Dr. Selby is also in charge of the Plant Medicine and Surgery Branch of the division. His years of experience as a practical hygienist enable him to give expert advice regarding the establishment of health departments in plants which apply to the government for help in this direction.

If the vision of Dr. Newman, who heads the Research Branch, were widely seen, the government would very quickly find it expedient to appropriate larger funds for this work.

"The only way in which American working men can compete with foreign working men in the reconstruction period," says Dr. Newman, "is to bring about conditions which will increase output without injuring the worker. This can be done by increasing his physical well-being, reducing industrial fatigue, and reducing the time which he loses through ill health and injury. We must use every means that modern science has discovered to protect the health of the worker if this nation is to be successful in the world competition for trade which will follow the war."

This is the adventure in which the Division of Industrial Hygiene and Medicine of the Working Conditions Service is engaged. The prize to be won is increased health and happiness for more than thirty million working men and women, and for the generations of workers to come. The obstacles to be overcome are the selfishness of a materialistic age, the inertia of custom and tradition, the ignorance and carelessness bred of the old system, the dread of "paternalism" of the great masses of the working people, and the pressure of industrial system based upon the outworn theory of *laissez-faire*.

The stakes are big: the obstacles are worthy of strong men; and the adventure is worthy of the interest of all mankind.

* * * *

THE PLANT DISPENSARY

Practical Suggestions for the Establishment of Dispensaries in Industrial Concerns

By C. D. SELBY, M.D., Consulting Hygienist, United States Public Health Service, of the Division of Industrial Hygiene and Medicine of the Working Conditions Service, U. S. Department of Labor

Industrial medical service is essentially the practice of medicine, including preventive medicine, applied to industrial needs, and the facilities required for industrial practice are adaptations of those which are required for general and special practice elsewhere. It is not practicable to discuss these in detail; merely the adaptations are here considered.

The dispensary is the doctor's office. It is sometimes called "dispensary" and sometimes "hospital." Which name is used is largely an affair of local preference and matters little so long as the name is known among the employees and is associated in their minds with the purpose for which the doctor's office exists. It will be designated in this discussion as the "dispensary."

LOCATION

The dispensary should be so situated as to be readily accessible to all who have need of it. This implies that it should not be in an upper story unless ample elevator service is supplied, nor in a far corner of a large plant without adequate transportation facilities. If it be desirable to have the dispensary at a gate, in connection with the employment department, dispensary facilities should be made more easily available to workers through substations conveniently located. Or it may be advantageous to house the treatment service in a centrally located dispensary and conduct physical examinations in the employment office.

It scarcely need be said that the dispensary should be well lighted—naturally and artificially—and free from dust, fumes, smoke, noise, etc.

ROOMS

The number of rooms necessary to adequate medical service depends upon (1) the number of workers employed, (2) the uncontrolled hazards to health, and (3) the number and variety of activities carried on by the physician and his aids. If the treatment service includes special activities, such as operative surgery, dental treatments, taking of x-ray pictures, eye treatments, etc., and the volume of work is sufficiently great, special rooms should be provided therefor.

A dressing room is essential to all dispensaries and this should be of such dimensions as to enable the peak load of dressings to be handled with speed and ease. A waiting room is desirable but not essential to a well-organized dispensary, as congestion at dressing stations is slight when treatments are given by schedule. A small doctor's office should be equipped for consultation purposes. This room should also secure to the physician a place of privacy for odd moments and head work. Examination rooms need not be of large floor dimensions, and the number of rooms used for this purpose depends upon the labor turnover and the speed with which applicants must be examined. Small disrobing booths may open directly into the examination rooms—at least two being necessary to each room—or they may open into a passageway communicating with two or more examination rooms. The need of wards, or rather beds, is difficult to ascertain, except by experience. Rest rooms, which are maintained in a large majority of industrial establishments, especially where female help is used to any real extent, should be attached to medical departments, as persons who are forced to seek recumbency during hours of employment should be assumed to be also in need of medical advice.

A most necessary room, though one which is often overlooked, is that for the storage of a limited amount of supplies and materials that are in daily use at the dispensary. Supplies in bulk may be kept in general store rooms.

Receiving rooms, toilets, dark rooms and other special conveniences may be fitted up according to the need at the specific plant. Two principles which may prove useful in dispensary planning are: (1) those rooms which are most frequently used should be most accessible; and (2) arrangements should be such as to permit passage in and out without confusion.

DISPENSARY EQUIPMENT

A very commendable principle to establish is that no equipment should be acquired until its value has been definitely proved and its need positively confirmed. To specify the articles of furniture, instruments, and other equipment which are essential is quite evidently out of the question, as physicians are individual laws unto themselves in this respect. Only such articles as may be unusual, or for other reasons deserve special mention, will be mentioned.

Suggestions for dressing room equipment will serve as a guide against over-equipping. The best dressing rooms are those which are most simply furnished. A one-unit room (one dressing center, which room can be used by two attendants) should contain:

1. Dressing stand.
2. Waste receptacle.
3. Stationary wash bowl.
4. Stools and chairs (for treatment of lower extremities when patients must be seated).
5. Foot and arm rests.
6. Instrument, medicine and supply cabinets.
7. Operating table (occasions for its use may be rare but it can not very well be omitted unless some substitute for recumbency is provided).
8. Stationary foot tub.
9. Nitrous oxide apparatus (if operative work is performed).
10. Sterilizer.
11. Specialist chair.
12. Electric magnet.
13. Small x-ray apparatus (if otherwise not available).
14. Apparatus for treatment of contusions and similar injuries (optional).
15. Towel hampers.
16. Desk (when clerical work is done in the dressing room).
17. Instruments and supplies.

The arrangement of the furniture and fixtures will vary with the size and shape of the room and the amount of equipment, but the arrangement should be conducive to systematic dressing room work, eliminating as far as possible the necessity of passing back and forth of the attendants.

Examination rooms should be severely plain, being equipped with two chairs, a small table used as a desk, possibly an examination table and the necessary apparatus for testing the blood pressure, hearing, sight, etc.

Industrial dental dispensaries are merely dental offices set up in industrial establishments, with practically the same equipment and supplies.

Several conveniences, but not necessities, of dispensary equipment are (1) drinking fountain; (2) dental spittoon for use in mouth and throat work; (3) large bath tub for treatment of heat cases; and (4) fountain for dispensing of a carbonated solution of magnesium sulphate to lead workers.

Transportation facilities should be provided for patients who can not walk to the dispensary.

Industrial physicians should keep such records of injuries and illnesses as would be of assistance (1) to the compensation department in making just compensation payments; (2) to the safety department in furthering accident prevention; and (3) to the medical department in ascertaining the presence of insanitary conditions and hazards to health.

These records should show the volume and variety of work done by the medical department in comparison with the needs to provide for an adequate health service.

Such reports should be made by industrial physicians as to convey a clear idea of the records of the department to officers who are interested.

Money is an article which may be used as a universal passport to everywhere except Heaven, and a universal provider of everything except happiness.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.
Director of the Boston Dispensary.

Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

A PROGRAM OF CLINICAL ACTIVITIES FOR TOWNS OF APPROXIMATELY TWENTY THOUSAND POPULATION

Prevention of Hospitalization Primary Object of Clinics—Clinic Needs of Small Community and Program for Meeting Them—Initial Step Taken by One Community

By D. B. ARMSTRONG, M. D., Framingham, Mass.

It will probably be conceded that the war has increased the needs for out-patient service, perhaps particularly in the smaller communities, where organizations have been slow to recognize their obligations in this direction. In the smaller towns, the out-patient service situation presents a problem practically untouched. It would seem, further, from my experience, that the small community presents a rather unique opportunity for those interested in medicine and health to think of this community as a functioning entity, and to consider the out-patient opportunities for service from a preventive point of view, in close conjunction with the routine therapeutic procedures.

Fortunately, the committee on dispensary work of the American Hospital Association has given some consideration to this problem and some time ago commissioned the writer, a member of this committee, to attempt the construction of a tentative program for the development of out-patient facilities in the smaller urban communities, taking into account both public health clinics and clinics for diagnosis and treatment. In some respects it was thought that experience in connection with the Framingham Community Health and Tuberculosis Demonstration might prove of value in determining the needs, as well as the possibilities, in the smaller town.

After favorable consideration of this report by the committee on dispensary work at the recent Atlantic City meeting of the American Hospital Association, it was suggested that the data be prepared for publication. The program as suggested by this committee may be presented as follows:

TYPE OF COMMUNITY

In considering a type community for this clinic program, it has been assumed that the average town of 20,000 population would present the following standard characteristics: (1) a reasonably autonomous community, with a minimum commuting population, not a suburb to a large city; (2) an industrial community, either with mixed industries or one predominating type of industry; (3) a growing community, with a certain percentage of foreign-born population, mixed races, etc.; (4) a community with the ordinary health machinery, including a

board of health, and probably a local hospital, though presumably not an established out-patient service.

ESSENTIAL OBJECTS

The essential objects in the development of any clinic program in such a community would include encouraging the town to recognize its medical and health clinic needs and to try, through public and private channels, to meet these needs. This would probably involve the definitizing of opportunities for community service. The hospitals and other existing treatment agencies should be encouraged to see the community as a whole, and not to deal exclusively with individual cases. It is essential to protect the hospital and therapeutic facilities by a bulwark of clinical agencies, thereby heading off many potential patients from hospital treatment by means of education, preventive advice, and early treatment of incipient conditions. These clinics should serve primarily to decrease the need for hospital treatment, and not primarily as an avenue into the hospital.

The clinic service should be put on a self-respecting, self-supporting basis, thereby encouraging adequate medical attention to the class of individuals who fall between the very poor and the wealthy. The result would be a consequent improvement of medical practice in general, with its elevation and standardization.

COMMUNITY NEEDS

The clinic needs of a community of this size, are in general as follows: (1) preventive, educative, health creative; (2) disease detective, eliminative, suppressive; (3) curative, therapeutic.

PROGRAM FOR MEETING THESE NEEDS

The hospitals of a small community are, together with the health department, its chief centers of organized service for health. The provision of clinics for a community should be based upon, or at least closely connected with, its hospital or hospitals. The hospitals have medical equipment and often have space which can be used for clinics with great advantage.

The practical clinic needs of a community fall into two classes—(1) clinics for public health work, and (2) clinics for diagnosis and treatment. The two groups, however, overlap considerably in their practical operation, both as to machinery and field.

The public health clinics grow out of the demand upon the health department to meet the medical needs of a community. The clinics for diagnosis and treatment grow out of the demand upon the hospital to meet the same needs. By cooperation of the hospitals with the health department, or such voluntary agencies as tuberculosis committees, and by coordination of the actual work done by all these agencies, the most efficient service will be secured with the greatest economy.

I. PUBLIC HEALTH CLINICS

1. *Prenatal and Infant Work*.—In the establishment of infant clinics in a small city the essential considerations are at least in part as follows:

The work should be designed to reach both sick and well babies, should be partly therapeutic (in cooperation with local physicians and institutions), and should be largely educational, covering the needs of infant hygiene, feeding, etc.

In most communities, infant clinics may be essentially educational and consultation establishments; in some places, they may also be milk stations.

The work should be associated with infant welfare nursing, both prenatal and postnatal in character, and a prenatal clinic for the examination and advice of expectant mothers should be closely associated with the infant welfare clinic whenever possible.

While the clinics themselves are essential for consultations and publicity, they are perhaps, from a practical point of view, less important than the home nursing and advice associated with the clinic work. Constant medical attention is essential at the clinics, with expert pediatric and obstetrical medical advisory service in difficult cases. The medical service should be paid for. The clinics may possibly be made partly self-supporting.

These clinics may be held in school buildings, community centers, etc., and should number from two to four for a community of this size, being held weekly in each neighborhood. One prenatal clinic a week will usually be sufficient. Preferably, the infant welfare work should be under the auspices of the town's official health agencies, though it may be established under private agencies.

2. *The Preschool Period*.—From a practical point of view, it is somewhat artificial to consider this age group separately. Ordinarily, the needs of this group, particularly in a small city, can be met by the infant or school health machinery. Important points for this group are:

The work should pay special attention to educational hygiene, feeding and nutrition, the detection and elimination of physical defects, etc.

The tuberculin testing of large groups of children in this age group will throw light on the prevalence of infection, may indicate the need for special measures, may emphasize the need for milk pastuerization, and will furnish valuable scientific data regarding the probable age at which tuberculous infection ordinarily occurs.

Work in this group should be under the auspices of the community's health authorities and may be supervised by the board of health or the school committee, depending upon the arrangement in the particular community.

This work as well as that with the school children may well be associated with summer health camp activities and in most communities be made partly self-supporting.

3. *The School Period*.—This work must be of necessity both diagnostic and therapeutic in character. The work of examining and detecting disease or defect is done partly in the school and partly in the clinics. The curative work is primarily for the clinics. This service should be closely allied with the health educational work in the schools along other lines, the recreation and athletic work, the hygiene instruction of both pupils and teachers, the physical educational activities, the open-window room work, the school lunch provision, etc. The staff for a town of this size would include a full-time physician, two full-time nurses, and such specialists as can be provided in the clinics. A dentist is particularly needed.

There should be at least one central dental clinic connected with the main clinic for diagnosis and treatment, and there should be substations, if possible, established in school buildings, community centers, or factories. In the evening the facilities should be open to the public on a pay basis, under other auspices, perhaps, than the board of health or school committee.

An eye-refraction clinic should be established, possibly in the high school building, but preferably as part of the main clinic for diagnosis and treatment. A nose and throat clinic should be similarly established, probably at the hospital.

All of the clinic work should be primarily on a pay basis, as it is essentially therapeutic in character, special provision being made for necessitous cases, after investigation. It should be carried out in close cooperation with the local industries, local hospitals, community centers, etc.

4. *The Industrial Group.*—Industrial clinics should be medical and dental in character and should be operated in close cooperation with other community agencies. Work should be largely diagnostic, cases needing treatment being referred to local physicians or medical clinics, except where minor or emergency problems are presented. Single industries employing from one thousand five hundred to three thousand employees should have independent clinic establishments, with at least one full-time physician and two nurses. Smaller industries, providing at least first-aid rooms, may combine for part-time medical and nursing service or may make an arrangement for service with one or another of the clinics for diagnosis and treatment. In connection with the medical and nursing work, a certain amount of outside work among the families of the employees may cautiously be developed, to be carried out in cooperation with school, district nursing, and other activities. All of this work, for the sake of uniformity and standardization, might preferably come under at least the advisory supervision of the board of health, if that agency employs a full-time medical officer of health. Part of the time of this official may possibly be given to the minor industries on a part-time basis.

5. *Tuberculosis.*—In addition to the medical and sanitary staff of the local board of health, this work will require at least the full time of one tuberculosis nurse, who will divide her time between the clinic and the home work. The clinic should be under the direct supervision of the board of health, located centrally, possibly with substations in convenient places in outlying neighborhoods in the community.

II. CLINICS FOR DIAGNOSIS AND TREATMENT

Certain essentials regarding these clinics may be briefly indicated as follows:

The medical clinics in a community of this size should be established under the joint auspices of the local health and private hospital authorities. They should be located in conjunction with the hospitals, as an out-patient service, and should be made as nearly as possible self-supporting. They should furnish the treatment end for the diagnostic work being done in the infant clinics, in the schools, and in the factories. Local medical talent should be employed in the routine work of the clinics, under expert supervision, associated with a specialist consultation service, possibly developing gradually a certain amount of specialization on the part of the local physician.

These clinics should be operated, so far as possible, on a pay, self-supporting basis, with compensation for the medical staff.

This medical clinic work is an essential factor in any complete community organization for prevention and cure of disease. It is an essential supplement to the infant, school, and factory educational and diagnostic work. It is necessary in order that all lines of approach to the health of the community may be made to function to their fullest advantage. It is a vital factor in any attack upon the community's death and morbidity rates. It must include both medical and surgical service and such of the specialties as can be added, depending on local conditions. If there are two hospitals in the community which need to be considered from the point of view of cooperation, the medical work may perhaps be carried out by one, and the surgical or some of the special work by the other.

The functions of the medical clinic should include the making of routine health examinations in cooperation with an expert consultation service, the chief object being the detection of incipient disease and the establishment of preventive measures. Possibly this medical examination work may be fostered by private agencies through the development of medical examination groups among the lay citizens.

The clinic should provide a general medical service, both for minor ills and for the more serious chronic affections, such as the cardiac, gastro-intestinal, and other cases.

If many sick babies and children have to be cared for, a special pediatric division should be provided.

In the surgical clinic, special attention should be given to the minor surgical cases. This clinic may do industrial accident work for small local business enterprises.

As to the special clinics, all of these will strengthen one another and add greatly to the value of the general medical and surgical clinics, if all are held in one building and under one organization. Ideally, they should be the out-patient department of the hospital of the town. Where this is not possible, some of the specialties may be in quarters provided directly by the board of health or school board.

The eye clinic and the ear, nose and throat clinic should do both school and adult work. An orthopedic clinic is very desirable, if a visiting orthopedist can be obtained, even if infrequently. The dental clinic is an essential service for children and adults (see above). A venereal clinic should be operated at least partly in the evenings and should be coordinated with national and state programs to combat syphilis and gonorrhea.

III. THE COST

A very rough indication of the probable gross cost of such health clinic machinery, both to the community and to the private agencies, may be indicated as follows:

A. THE TOWN ITSELF

1. A school physician ($2,500), a board of health physician devoting part of his time to industrial work ($3,000), and an infant welfare clinic physician ($300)—total	$ 5,800
2. A part-time dentist	700
3. An infant welfare and pre-school nurse ($1,200), two school nurses ($2,200), and a tuberculosis nurse ($1,200)—total	4,600
4. Infant welfare, school, and tuberculosis clinic maintenance	1,500
Grand Total	$12,600

B. PRIVATE AGENCIES (INDUSTRY)

1. Three industrial physicians	$ 7,500
2. Six industrial nurses	7,000
3. Industrial and general medical clinic maintenance	3,500
Total	$18,000

It must be realized that this cost will cover other activities not itemized in the above list and that very substantial financial returns may be expected from certain of the services. Further, aside from financial returns, the industrial work more than compensates the industries in the conservation of labor, the efficiency of employees, etc.

CONCLUSIONS

With a few exceptions, the foregoing services are in actual operation, or planned for establishment, in Framingham, Mass., in connection with the Community Health and Tuberculosis Demonstration. This applies particularly to the preventive and diagnostic aspect of this clinic program. Definite plans are in process of construction for the therapeutic clinic program as well, and it is believed that cooperation will be secured from hospitals and local physicians. For that reason, it may be wise to look upon Framingham as a laboratory for experimentation and research in the establishment and operation of a reasonably complete community clinic program for smaller

Undoubtedly, an impetus has been given to this work by the war. The war has emphasized the need for both public health services and therapeutic facilities in clinics.

OCCUPATIONAL THERAPY, VOCATIONAL RE-EDUCATION AND INDUSTRIAL REHABILITATION

Conducted by DOUGLAS C. McMURTRIE, *Director Red Cross Institute for Crippled and Disabled Men* and ELIZABETH G. UPHAM, *Advisor in Occupational Therapy, Milwaukee-Downer College.*

OCCUPATION THERAPY*

Purely Therapeutic Occupation Training and Training With an Educational and Economic Purpose Must Be Distinguished—Needs of Teachers Must Be Met

By SUSAN C. JOHNSON, Director of Occupation at Montefiore Home and Hospitals, New York City, and Lecturer in Occupation Therapy at Teachers College, Columbia University

Considerable difference of opinion exists upon what are the essentials in any course of study for teachers of occupations in hospitals. This is not surprising in view of the sudden call for teachers to enter this field in large numbers, and when we consider that in deciding upon the training for the teacher we virtually decide what occupations shall be taught in the hospital; that military hospitals and civil hospitals each have their separate problems; and that while the purpose of all instruction in hospitals should be therapeutic primarily, the re-education of the soldier has put greater emphasis upon the educational aspect than has existed heretofore.

Hospitals, taken as a whole, constitute a world of their own about whose internal life non-medical people are generally very ignorant. When hospital social service was established, a new group of professional people entered the realm of hospital management, and, under normal conditions, were absorbed into it without undue excitement or radical differences. The same thing would have been true, no doubt, of the entrance of the occupation teacher, but the idea that it was desirable to have teachers specially trained for this work and that they could well be non-medical people was just coming to be accepted when the avalanche of war necessity descended upon us. The great demand for nurses and the need for numbers of teachers in this field swept occupations out of the hands of the nurse without further discussion and made necessary either the absorption of a foreign group into the hospital regime or the discard of the whole idea of using occupation for a therapeutic purpose in military hospitals. It is not surprising that this situation with all its related problems threatened seriously the progress of occupation therapy,[1] but now that this means of treatment has gained an accepted place in the government plans for reconstruction, the recent scrutiny and drubbing which it has had should prove a blessing in disguise. Both its staunch defenders and its recent converts should set to work to map a clearer road ahead by which both civil and military hospitals may travel to better results.

What seems to be a difference of opinion among those who are working with the same end in view, is often *not* a *real* difference at all, but is a misunderstanding due to our failure to keep always before us the several natural divisions of our work and the different purposes of each, as well as the fact that each must overlap and merge one into the other instead of being separate and aloof. No standards for training teachers can be set without recognition of these different elements. It might appear that hospitals as such should be concerned with occupation only when it is given for a strictly therapeutic purpose, and this will be true of hospitals for the insane. However, in other classes of hospitals, the educational and economic aspects are so closely allied with the therapeutic that, because of their very practicality, they force themselves into the problem while the patient is still in need of hospital care.

Consequently, after eliminating the retraining of the cripples subsequent to their discharge from the hospital, there remains within the hospital problem itself two main divisions, viz: invalid occupations for a therapeutic purpose only and the more formal occupations with the moral and educational purpose added to the therapeutic. After these two main divisions and their interrelations have been established, it might appear that the whole matter could be settled upon an obvious basis, but, on the contrary, only the more simple of the many problems would have been met. The sex, age, social and industrial history, and the diagnoses and prognoses, as well as the personality of the patient, are all factors which make it necessary to plan with much greater consideration for the individual than is done in any system of instruction under normal conditions.

Military hospitals present a less complex problem than civil hospitals, for in the military there is but one sex, ages are within a closer range, and there is segregation into reconstruction hospitals of cases for formal training, as well as the usual segregation based upon diagnosis, while in the civil hospitals we have both sexes, all ages, no classification with regard to the occupational forecast, and the additional problem of charity cases. Further than this, the period of time for formal instruction can be made a reasonable one under the system of the curative workshop of military hospitals, while patients in civil hospitals must generally be discharged as soon as convalescence is well established or the disease is pronounced stationary, except perhaps for mental cases. In hospitals where there are not out-patient workshops this latter condition in itself would prevent occupation from being anything but therapeutic in purpose. This purely therapeutic purpose, without any association with educational or industrial matters is full and sufficient reason for occupation with any long-time cases with favorable prognoses, with most chronic cases, with patients suffering from nervous and mental diseases, and with orthopedic cases treated upon a physiological basis, but this does not cover all the needs of hospitals.

Large numbers of patients are discharged daily from our civil hospitals who have years ahead in which they must be wholly or partially dependent. How great this dependence will become hangs largely upon how much they are helped to help themselves in the early stages of their disability. It is not with those among them who

*Read before the Second Annual Meeting of the National Society for the Promotion of Occupational Therapy, New York City, September 2-4, 1918.

[1]Terms in common use which relate to occupation therapy are very generally applied with a loose interpretation. Occupation therapy as used in the military hospitals seems to include occupations where the purpose is primarily that of education and that which should be primarily therapeutic is termed "ward occupation."

The terms "diversional occupation" and "invalid occupation" have been used to cover both the whole and a part of what the term "occupation therapy" includes.

Although I believe that the term occupation therapy should be used to apply exclusively to where the purpose of occupation is primarily therapeutic, in this paper I have used the term "invalid occupation" in this sense in order to differentiate it from occupation given primarily for an educational purpose while the person employed is under medical care.

can re-enter industry under normal conditions in spite of their disability that occupation therapy should concern itself beyond the wards, but rather with those who can contribute to their own support or at least aid in preventing self-deterioration under some protective system of education and production with hours and conditions of work adjusted to their needs.

The first step in such a system would be the further development of the out-patient workshop in connection with clinics or at least directly under hospital supervision. The idea of this shop and of the curative workshop are much the same, but the development of the former has had a serious setback through war conditions, while the latter promises to achieve large ends.

The development of a system of productive occupation with needed medical care for the substandard worker is obviously not a simple matter; the ups and downs and the present discontinuance of such enterprises as the Sharon-Ware Shops in New York and the out-patient shop at the Massachusetts General Hospital might discourage us, but there is much in these and in certain other examples which hold out real encouragement, and the matter is of such great philanthropic and economic importance that it should not be neglected because of the difficult problems which it involves.

The history of cases discharged daily from our hospitals would make a more forceful argument and stronger appeal than that which any individual could make, and one visit to the Neurological Hospital at Blackwells Island should set one searching for all preventive measures possible. Also, we shall surely have soldiers discharged from hospitals whose condition will place them in the zone between hospital residence and industry under normal conditions who can never compete with normal labor but who could carry on productive occupations within some protective system.

The extension of the out-patient shop to all civil hospitals of certain types and the development of these to their fullest possibilities would establish uniformity of purpose between the military and the civil hospitals in occupational treatment. Then discharged patients from both alike could benefit by any municipal or state plan of education and specialized industry for substandard workers as well as for those who can be fitted to compete under normal conditions. It is not within the purpose of this paper to enter upon the details of such a plan, but until some organized system supported by public moneys is put into operation, occupation therapy must stop short of its economic possibilities and confine itself to a purely therapeutic purpose in civil hospitals. Furthermore, what should constitute the proper training of the teacher will remain a conundrum until the provinces of invalid occupations and occupations which have a larger educational or reeducational purpose are more clearly defined and constantly borne in mind, and until the right interrelation between the two is worked out and established upon a sound basis.

The teacher in both the curative workshop and in the out-patient shop must obviously be a specialist in one or more academic, industrial, or commercial subjects and have an understanding of vocational education. On the other hand, the teacher of invalid occupation in the wards or in workrooms as they exist in most hospitals must be a master of a number of simple occupations, but not a Jack of several, as is too often the case. Both will need an understanding of the psychology of both normal and abnormal minds, and will need to be well grounded in the principles and methods of teaching the sick. My own observation has led me to believe that poor results are due quite as often to the lack of logical methods of teaching as to the lack of knowledge of the subject matter to be taught. The subject matter in which the teacher of diversional occupations should be prepared to give instruction may well include any occupation the processes of which can be accomplished under hospital conditions, the products of which have an intrinsic value but which do not compete with machine or factory output, and the development of which will provide either simple, straightforward work which may produce a quieting effect or graded complexities which may stimulate the patient to greater effort or encourage him in self-expression. While games and other recreations have a legitimate place in occupation therapy, particularly with mental and nervous cases, there has been considerable misunderstanding regarding this which is largely responsible for the idea that the training of the occupation teacher is a simple matter which has no more serious purpose than that of amusement and which can be accomplished with a raw recruit in a few days' time. Personally, I think there is danger to the sick person in including any academic or commercial subject within the realm of invalid occupation unless it should be drawing and design, for our aim here is to teach the satisfaction and rest which come through suitable occupation rather than to tax the mind with complexities.

It is not improbable that teachers of invalid occupations who have the right personal qualifications and educational background can be prepared for hospital teaching under supervision in a period of from four to six months, according to the amount of technical training which they possessed on entering the course. They should spend a considerable portion of this time in hospital practice teaching, and any such limited course would need to require a prerequisite in at least two of the more important crafts and also in drawing and design, for these are fundamental in handcraft and they cannot be acquired through a cramming process. Those who are to fill positions as head teachers should have in addition to these prerequisites at least from eight to ten months' training with considerable time devoted to matters of administration of departments. Teachers for civil hospitals will generally need a longer and fuller training than that required for military hospitals because there is less distribution of duties in the civil hospitals. Those without either proficiency in hand crafts or design or without previous teaching experience would hardly be able to qualify for assistant teachers with less than from eight to ten months' training.

Teachers for the curative and out-patient shops who have already had some of the training required will be found more readily than those for invalid occupation, for the regular rank and file of teachers of academic and commercial subjects and practical arts can be drawn upon for this field better than for the field of invalid occupations, as matters concerning the health of the patient will be less delicate after he can leave the ward and his teaching may then fall into more nearly normal lines.

In the emergency of the war the great dearth of teachers who were qualified by experience to act as directors and instructors has proved a considerable detriment in obtaining worth-while results from ward occupations in military hospitals. Persons filling such positions would obviously need to have some knowledge of all the subjects which are included in both the therapeutic and educational aspects of the work; should be specialists in one or more of these subjects; should have a thorough knowledge of all matters concerning equipment and supplies; should have had pre-

vious experience in handling sick people; should have an understanding of the whole field of occupation therapy with its therapeutic, educational, and vocational aspects, and an undestanding of their right interrelations. This great field of occupation for the sick and afflicted will never bear full fruit until the dignity and importance of the position of the teacher in this field is recognized, until physicians give more detailed thought to the effect of occupations on the mind and body, and until educators realize that ward occupations bear as important a relation to reeducation as primary education does to secondary.

In an address before this society a year ago, I stated that the nurse could not be a satisfactory teacher of occupations without thorough and special training in hand craft and design; that she could not perform the duties of the occupation teacher and the nurse with full credit to both; and that occupations fell far short of their possibilities under such an arrangement of double duty for the nurse. Now, not only has the new teacher arrived who is replacing the nurse in instruction in occupations, but the pendulum has swung so far to the opposite extreme that I fear that we are losing sight of the nursing aspect of the work of the teacher, and therein lies another danger.

This suggests that in order to keep the right relations of the duties of the nurse and the teacher they should get their training side by side in the same atmosphere, and that training schools for nurses might be the rational place for at least a part of the training of the occupation teacher. Under such an arrangement, the director of occupations for the hospital should be qualified to take a place upon the faculty of the training school and not only to instruct the occupation teachers in their subjects but also to give certain lectures which would provide the information to nurses needed to establish the right understanding and promote cooperation between the two groups.

It will always be a problem to keep a definite middle path between the nursing and the teaching aspects of this work. Therapeutics have too often been an excuse for poor craftsmanship and trivial results. On the other hand, those whose sole training has been that of the craftsman or has been in educational and vocational fields outside of the hospital would naturally and quite unconsciously put too strong an emphasis upon the educational and economic sides. It is the ability to keep a fine balance between these two things which, after all, will prove the real understanding and efficiency of the directors of occupation therapy.

In order to maintain the standards for which we aim when we plan and consider and plan again for the preparation of the teacher, we must follow her beyond the training classes and into the hospital.

Under conditions as they exist today in most places, even the best qualified teacher is laboring against too heavy odds to be able to maintain the standards which we may set for her.[2]

Time of preparation for work, provision of the right materials and equipment, and the convenient arrangement of supply closets and workrooms in close proximity to wards are all matters having much greater importance than is recognized if we can judge by present conditions. The teacher's time and vitality will reach just so far and, if it is dissipated through working under adverse conditions, the result will be to lessen the efficiency of her work with the patients.

After consideration of the internal conditions under which the occupation teacher serves, I know of no other aid to her in her work so important as that of providing means for maintaining high standards in the products of occupation. The nose of the average occupation teacher is kept so close to the grindstone that she has little time in which to search out models of real worth which are suited to her needs. It would be highly desirable to have one professional designer with each group of teachers who could devote her whole time to this phase of the work, and there should be some systematic way devised for placing at the convenient disposal of the teacher good models, photographs, drawings, and designs suitable for hand craft and for the needs of work which can be accomplished under conditions met with in the hospitals.

It would seem that this period of sudden expansion is not the time for attempting to standardize any part of the work in occupation therapy for we certainly are in a formative period still. However, in order that we may work toward better standards on surer grounds, it seems opportune that this society should undertake to promote activity which will provide for: (1) shops in civil hospitals which parallel the purpose of the curative workshop of military hospitals; (2) a protective system of work for substandard workers after discharge from hospitals; (3) better conditions of service for teachers in hospitals; (4) practical aid to the teacher in maintaining the best standards in products.

* * * *

A MARKET GARDEN TRAINING CENTER

Course of Training at Cardiff, Wales, Gives Disabled Men Instruction in Growing Vegetables, in Fence-Building, Hedging, Ditching, Etc.

When the Welsh town-planning and housing trust, which was founded to promote the better planning of towns and villages and the better housing of the people, found that the war prevented any progress in housing reform, it applied its energies and resources to the reeducation of disabled soldiers. At Cardiff, on an estate owned by the trust three miles from the center of the town, it has established under the sanction of the Ministry of Pensions and with the cooperation of the Joint Disablement Committee of South Wales and Monmouthshire a market garden training center "for disabled soldiers, sailors and airmen."

The course of training at Green Farm, as the estate is known, lasts a year and aims to give thorough practical and theoretical knowledge of the growing of all kinds of fruits and vegetables, and in addition such knowledge of fence-building, hedging, ditching, and the erection of sheds, as would be useful to a market-gardener.

Men are sent to the center by the local war pensions committees and receive the usual allowances from the Pensions Ministry for support while taking training. They are lodged in comfortable houses as near the training center as possible. Most of them were sailors before the war with little or no knowledge of gardening, but they have gone into the work earnestly and are making good progress. The disabilities include heart trouble, loss of right eye, debility following malaria, and loss of right thumb.

Upon completion of their course they will be advised to take work in a market garden or private garden; then, after they have acquired experience, they will be helped to take up a piece of land near a good market, if they wish. The trust is considering a plan whereby it will settle its pupils in market garden holdings equipped with houses and outbuildings on part of the Green Farm estate.

[2] As the result of a motion which followed this paper, a committee was appointed to give systematic and practical aid to teachers for maintaining good standards in products. The first installment of the work of this committee will be published in the near future by the National Society for the Promotion of Occupational Therapy.

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Institutional Membership

Nation-wide hospital organization is imperative. Nation-wide hospital problems can not be solved without organized hospital opinion and influence. The strength of the hospitals can best be exerted through an association in which the hospitals themselves are the constituent members. The American Hospital Association is such an association.

Please send in your applications.

Application blanks have been sent all institutions formerly represented in the association by personal membership. Additional application blanks will be sent upon request.

Since the publication of the list of applications for institutional membership, applications have been received from the following institutions:

Brinkley-Jones Hospital Assn.	Milford Kansas.
City and County Hospital	St. Paul, Minn.
Charity Hospital	Norristown, Pa.
W. A. Foote Memorial Hospital	Jackson, Mich.
W. C. Graham Hospital	Keokuk, Iowa.
Gartly-Ramsay Hospital	Memphis, Tenn.
Hoffman Hospital	Keyser, W. Va.
Hebrew Hospital	Baltimore, Md.
Hackensack Hospital	Hackensack, N. J.
Howard Hospital	Philadelphia, Pa.
John N. Norton Memorial Infirmary	Louisille, Ky.
Johns Hopkins Hospital	Baltimore, Md.
Jewish Hospital	St. Louis, Mo.
Lima Hospital	Lima, Ohio.
Mercy Hospital	Toledo, Ohio.
Mary Hitchcock Mem. Hospital	Hanover, New Hampshire
Memorial Hospital	Pawtucket, R. I.
The Mayo Clinic	Rochester, Minn.
New England Baptist Hospital	Boston, Mass.
Nathan Littauer Hospital	Gloversville, N. Y.
Nathan & Miriam Barnet Mem. Hospital	Paterson, N. J.
Newark Beth Israel Hospital	Newark, N. J.
Ohio Valley General Hospital	Wheeling, W. Va.
Provident Hospital	Chicago, Ill.
Pennsylvania Hospital	Philadelphia, Pa.
Research Hospital	Kansas City, Mo.
South Chicago Hospital	Chicago, Ill.
St. Joseph's Hospital	Lancaster, Pa.
St. Luke's Hospital	New Bedford, Mass.
St. Agnes Hospital	Raleigh, N. C.
Somerset Hospital	Somerville, N. J.
St. Elizabeth Hospital	Youngstown, O.
Theda Clark Memorial Hospital	Neenah, Wis.
University Hospital	Boulder, Colo.
West Suburban Hospital	Oak Park, Ill.
Worcester Hahnemann Hospital	Worcester, Mass.
Warren General Hospital	Warren, Pa.
Wilkes-Barre City Hospital	Wilkes-Barre, Pa.
Winnipeg General Hospital	Winnipeg, Canada.

Sixty-one institutions, therefore, have made application for institutional membership. Approximately, however, 800 institutions are now represented by personal membership. The outlook is encouraging, and it is hoped that every institution now represented by personal membership will have become an institutional member before the next convention.

Audit of the Association Books

In accordance with the recommendations of the Auditing Committee at the twentieth annual convention, the books of the association are now being audited by Robert Hamilton Smith, accountant, Washington, D. C. The auditor has been instructed to make an auditing report complete in every detail. It is hoped the audit will be ready for publication in the bulletin of the association at an early date.

Twenty-first Annual Convention, American Hospital Association

September 8-12, 1919, Cincinnati, Ohio. Headquarters, Hotel Gibson. *Make your reservation now.* The Gibson Hotel, headquarters, is a new, modern, 500-room hotel. It is not large enough, however, to house all those attending the convention. It is, therefore, none too early to advise members and guests who wish to live in the headquarters hotel during convention week to make their reservations now.

The rates guaranteed by the hotel are as follows: Single rates, $2, $2.50, $3, $3.50, $4 and $5; double rates, $3.50, $4, $4.50, $5, $5.50, $6 and $7. All rooms have private bath, either shower, tub, or combination tub and shower. Large display rooms that will accommodate five to eight persons, single bed for each person, with private bath, may be had at the rate of $2 per person.

In a later bulletin complete list of desirable hotel accommodations in Cincinnati will be published. Both by mail and through the bulletin of the association, all members, as well as members of allied associations and others, will receive complete information about Cincinnati and the convention.

Program

As heretofore, there will be both general sessions and section meetings. The sections already organized are: Nursing, Dietetics, Social Service, Out-Patient, Hospital Construction, and Hospital Administration. Last year the American Dietetic Association constituted, so far as the program was concerned, the dietetic section. The same arrangement will continue this year. It has been suggested that the program for the Social Service Section be arranged by or in cooperation with the National Association of Social Workers. Letters have already been sent the chairmen of the various sections urging them to make recommendations for their sectional program at an early date. It has been suggested that each section have one section meeting this year instead of two as at Atlantic City. This suggestion is rather generally favored.

Suggestions for Papers and Discussions

In accordance with the constitution, the president and executive secretary will give considerable attention to the program of papers and discussions. Suggestions are very much desired. Requests have already been made that there be at least one and perhaps two meetings of hospital superintendents especially arranged for the consideration of the every-day hospital problems. One such meeting was informally arranged at Atlantic City, but

requests have been made that such meetings be an established feature of the program.

One of the features of the Cincinnati convention will be a visit to the Cincinnati General Hospital and the University of Cincinnati Medical School. Arrangements are being made for both general and section meetings in the various halls and class rooms of the medical school on this date. Business and pleasure can be combined, and the day should be one of the events of the convention.

Commercial Exhibit

Plans for the commercial exhibit are going forward rapidly. Preliminary data, including sketches of commercial exhibit space to be sold by the American Hospital Association and the American Dietetic Association, have already been sent former exhibitors. Replies to this communication indicate considerable interest on the part of hospital suppliers. Similar communications are being sent an additional list of such firms.

The George A. Fern Company of Cincinnati will again have charge of the erection of the exhibit booths. It is expected that these plans will be complete and literature will be printed so that exhibit space can be on sale shortly after the first of March.

Non-commercial Exhibit

Desirable space has been set aside for the non-commercial exhibit purposes. One of the members of the Cincinnati local committee will probably have charge of the non-commercial exhibit. Cincinnati hospitals are famous for non-commercial exhibits, and the exhibit this year should prove attractive. Communications on this subject will be sent out at an early date and further information printed in the next bulletin.

Exhibit of Hospital Plans and Models

Because of renewed interest in hospital construction, it has been suggested that the association arrange with hospital architects and others for an exhibit of hospital plans, sketches, pictures, and models. The suggestion has met with favorable comment. A similar exhibit conducted by THE MODERN HOSPITAL at the Cleveland convention aroused considerable interest. Plans and models of wartime hospitals may perhaps be an added feature. Suggestions relative to this proposed exhibit are desired.

Printing of the 1918 Proceedings

The proceedings of the twentieth annual convention, Atlantic City, 1918, will be printed by THE MODERN HOSPITAL. The association is taking advantage of the large amount of standing type containing the various papers and discussions already printed in THE MODERN HOSPITAL. The discussions have been edited with the view of eliminating unnecessary and irrelevant material. Those who took part in discussion will be given an opportunity to correct their remarks as taken down by the stenographic reporter. These remarks have already been forwarded to the participants in the discussion. Every effort will be made to complete the printing and distribution of the proceedings at an early date.

Legislation

There is now pending before the United States Senate in the Committee on Public Health and National Quarantine, Mr. Ransdell, chairman, Senate Bill No. 5202: to authorize the Secretary of the Treasury to provide hospital and sanitarium facilities for discharged sick and disabled soldiers and sailors.

It is understood the primary purpose of the bill is to provide for the care and treatment of claimants of the War Insurance Bureau, some of whom are suffering from disabilities of chronic character after having received the so-called maximum treatment at the hands of the military authorities. While the bill has already passed the House, there has been some suggestion that an expenditure of $10,500,000 by the Federal Government for such a purpose is not necessary at this time. It has been suggested that a wider use might be made of civilian hospitals for the purpose.

For the American Hospital Association the matter has been referred to the War Service Committee, Dr. S. S. Goldwater, chairman, which committee is now giving the matter careful consideration with a view of expressing the opinion and attitude of the association toward the bill.

The secretary has received a communication from one of the members of the association containing the following:

"I am taking this opportunity to write you with reference to the present bills before Congress continuing for two or more years the restrictions against immigration into this country, and would like to know what position the American Hospital Association, through its managers, have taken in the matter. Some of us in the east, connected with the hospitals here, are viewing with considerable alarm the possibility of immigration from the southern countries of Europe during the present year, and several endorsements in favor of continuing restrictions on immigration have gone forward to Washington. A close study of the results of the recent influenza epidemic as shown by the large mortality rate, the reduced efficiency in our great industrial plants, by reason of absence from our mills and factories because of this disease, and the possibility of an early return of this epidemic, makes it evident that every precaution should be taken to safeguard the public health. But the matter of opening up our country to the flood of undesirable and disease-breeding immigrants from certain countries which, as a result of the privation and suffering of the recent war, are sure to constitute a great menace to the public health, and to our industries, and the larger question of imposing on our various states a much larger body of dependents at the public expense warrants action being taken at once by our boards of health, chambers of commerce, and state authorities to prevent such a calamity.

"It would seem to me, that this is a very important matter, to be taken up seriously by your association, if it has not already done so."

The secretary has sent for copies of this bill for consideration of the legislative committee or the board of trustees. In the meantime, opinions on the immigration question as referred to in the above communication are solicited.

The secretary takes this occasion to say that the office is in reasonably close touch with Federal public health legislation both through the *Congressional Record*, which is received regularly in the office of the association, and also through members of both the House of Representatives and the Senate.

Telephone Service and Rates Under Government Control

The January bulletin contained a request for information from various hospitals relative to their telephone service and rates under government control. No replies have been received. Accordingly the following communication has been forwarded to several hospitals in each one of the states:

What about your telephone service, rates, charges and discounts under governmental control? Are you satisfied with the service? Is it better or worse than under private control? Have your telephone rates and charges increased or decreased? Do you receive or have you been deprived of discounts on installation of service under governmental control? Has there been any attempt at standardization of charges to hospitals as charitable institutions under government control in your state?

The secretary desires immediate information from hospitals on this subject. This communication is, therefore, being sent to several hospitals in each of the states. Accurate information is desired promptly because Mr. W. H. Lamar, solicitor in the post office department, stated in a letter, under date of November 9, that "the postmaster-general has appointed a committee to investigate and report upon the matter of standardization of telephone rates throughout the United States." When the report of that committee is received, it may be that the matter of discounts to hospitals may be taken up.

WILL YOU, THEREFORE, PLEASE SEND ME THE INFORMATION REQUESTED ABOVE AT THE EARLIEST POSSIBLE MOMENT?

Standardization of telephone charges to hospitals, including special discounts for cost of telephone service, should be possible under Federal control. This information is desired as the basis for a communication to the postmaster-general in behalf of the American Hospital Association.

In addition, the secretary will be glad to have information on this subject from any other hospitals.

Health Insurance

The health insurance movement has developed very rapidly in the United States. As early as 1912 several associations began to study the subject. In 1916 health insurance measures were introduced in the legislatures of New York, Massachusetts, and New Jersey. In 1917 twelve state legislatures gave consideration to the subject, with the result that eight states appointed investigating commissions. The California, New Jersey, and Massachusetts commissions made reports last year in favor of health insurance legislation, but no such legislation was enacted. Other commissions are reporting this year. Preliminary reports by the Ohio, California, and Wisconsin commissions are now available.

OHIO

Preliminary statement by the Ohio Commission was published in the February number. Summary of the findings and recommendations and opinions is now available in pamphlet form. This and the complete report, with the legislation recommended, can be obtained by addressing the Ohio Health and Old Age Insurance Commission, Columbus, Ohio.

While the commission recommended a plan for compulsory sickness insurance, it is not expected that the legislature will act favorably upon it this year. Other recommendations of the commission, such as re-organization of county health administrative systems, medical inspection in the public schools, and large appropriations for sickness prevention, will undoubtedly receive more favorable consideration.

CALIFORNIA

The report of the California Commission will not contain legislative recommendations. It will contain various sickness prevention recommendations, a draft of compulsory health insurance bill, and a digest of the Lloyd George people's insurance act, upon which the bill is largely based.

The California legislature can not enact compulsory sickness insurance legislation unless the people of the state first amend the constitution. Such an amendment was placed before the voters in November, 1918, but was rejected by a vote of almost three to one. The commission, however, is still continuing this work and will make reports. The following quotation from the 1918 report of the commission shows a situation not uncommon in many of the states, which is of great importance to hospitals in general:

"The comparatively small number of hospital beds that are really available to the wage earners under present conditions points to the imperative need from the public health standpoint of bringing more hospital service within the reach of persons of small income. The fact that the cost of hospital care is prohibitive to many persons who have no alternative except a request for charitable service points to the imperative need from the standpoint of social democracy of providing a way by which good hospital care can be paid for by persons of small income."

WISCONSIN

The recommendations of the majority of the Wisconsin Committee on Social Insurance follow.

Since any compulsory health insurance measure which contemplates a contribution to the fund on the part of the state will first require a constitution amendment, the committee in the meantime offers the following suggestions:

1. We urge upon the legislature the necessity for more liberal appropriations for the support of the state board of health and the encouragement of correspondingly liberal appropriations on the part of the local boards of health, including the appointment of a paid county health officer in every county of the state. We also deem it advisable to direct special attention to the state health laboratories with the hope that they may be made in the course of time centers of preventive medicine and become useful in the possible future development of so-called group medicine.

2. We urgently recommend the universal introduction of physical and medical examinations into all the public schools and other state educational institutions of Wisconsin. We have arrived at the opinion that a reorganized state health service must rest primarily upon adequate methods of child and school hygiene, including the periodical physical and medical examination of all children during the period of school life.

3. As a means of securing more adequate care, especially during prolonged illness, we are of the opinion that the legislature should give encouragement to the establishment of district nursing centers of various types best adapted to local requirements.

4. The reduction of infant mortality should be made a part of the public health program, and we recommend that a bureau of child welfare be established in connection with the present state health organization.

5. The legislature also should give liberal encouragement to the development of financial community support of hospitals and sanatoria, as most urgently called for by local conditions, subject, of course, to wide variation throughout the state. We, however, feel that every county should have not less than one thoroughly equipped modern hospital for general purposes.

6. While our investigations have not disclosed very serious deficiencies in the housing of our wage-earners, we are of the opinion, nevertheless, that the legislature should provide for the adoption of our growing industrial population. The relation of ill-health to unsanitary methods of housing is so clearly established that it requires no arguments to re-emphasize the urgency of this recommendation by an appeal to the facts, which are understood by all who have given the matter serious consideration.

7. We are of the opinion that occupational diseases should be included in the Workmen's Compensation Act and recommend that proper legislation to this end be enacted.

8. Finally, we would recommend that the state insurance department concern itself more actively with the supervision and control of voluntary insurance undertakings having for their object the pecuniary relief or medical attendance, or both, of wage-earners during more or less prolonged periods of illness. It seems to us that a standardized plan of organization and procedure might be worked out under the direction of the Insurance Commissioner and recommended to the wage-earners of the state as well as to the employers of labor for individual or collective adoption.

The Governors' Messages and the Public Health

The legislatures of some forty states are now in session. The governors have delivered their messages to these bodies. Thirty-four of them have been received and examined by the secretary.

The governor's message is of great importance in that it frequently reveals the public state of mind upon questions of the day. The average governor has his ears around seeking to learn what his constituents think and say about public questions. The messages indicate this year that people have been thinking more than usual about public health.

It used to be said that the members of the average board of public health did nothing but sit around and wait for an epidemic to occur. This was an effective way of saying "boards of health are more interested in cure than in prevention." Whether the statement is correct or not, it certainly is true that last year the country was inflicted with a nation-wide epidemic and that many of our boards of health, state and local, were wholly incompetent to deal with the situation. This may have been due either to incompetence and poor organization on the part of the boards or, more likely, in some instances, to a "penny-wise and pound-foolish" policy on the part of

the state legislatures in the matter of appropriation for public health work. Many of the governors in their messages took cognizance of these conditions. They recommend reorganization of the state health departments along more effective lines as well as reorganization of the local health administrative system. Several of them demand that there be full-time county health officers under the supervision of the state authorities. The governors emphasize the importance of a comprehensive state health system prepared to act at all times for all the people.

The great war as well as the influenza epidemic has aroused greater interest of the governors in public health. Many of them dwell upon the physical unfitness of the young men as revealed by medical examinations under the selective service act. As Governor Milliken of Maine says, "The most startling revelation of the war, from the standpoint of public health, was the fact that one-third of the young men called for service under the selective draft were incapacitated by reason of physical defects or under-development which might have been prevented by proper medical supervision and treatment during their school years." Great importance is also laid upon the ravages of venereal disease, and recommendations are made for adequate appropriations for prevention and cure. In addition, the governors recommend medical inspection in the public schools, extension of the Workmen's Compensation Act, complete physical and educational care of returned soldiers and adequate appropriations for existing and new state hospitals and other institutions. Another governor says, "activities must no longer be confined to dealing with epidemics, but must cover the dissemination of information regarding preventable disease, as well as of better general health conditions through better sanitation, better food, and better water."

Several governors recommend the appointment of commissions to study health insurance. The governor of New York recommends the enactment of health and maternity insurance legislation.

A glance through the following specific recommendations will indicate how important it is that the hospitals take an active interest in public health legislation—not an interest that desires a report after the legislature has adjourned, but one that seeks to assist in the framing of wise public health legislation and opposing in an organized capacity all selfish and narrow and unwise legislation of this kind.

Specific Recommendations From the Legislative Messages of the Several Governors

Arizona.—Appointment of a commission to draft a workmen's compensation act. Reorganization of the state health department with full-time state health officer.

Arkansas.—Enactment of workmen's compensation act. Adequate appropriation to the state department of health—hitherto limited personnel and finances.

Connecticut.—Sickness prevention activities on the part of the state, and particularly the development of state child welfare work.

Illinois.—Creation of a laboratory for psychopathic research in the Department of Public Welfare. Enactment and enforcement of state housing law as a means of protecting the public health.

Indiana.—A commission to study sickness and health insurance. Extension of the public health service for the conservation of "the health and physical and moral well being of our people."

Iowa.—Extension of hospital facilities for the care of crippled children. New tenement house laws.

Maine.—Appointment of a commission to study sickness insurance and report to the next legislature. Reorganization of the state health service and the enactment of laws authorizing the combination of towns into districts for purposes of employing a public health officer, part of whose salary shall be paid by the state.

Michigan.—A full-time health officer in every county working under the supervision of the state board of health. Strengthening of the workmen's compensation act in general, and in particular a substantial extension of the period of medical care. Appropriation of $100,000 to combat venereal disease.

Missouri.—Revision of the quarantine and regulatory laws. Complete reorganization of the state board of health. Granting of power to this board to have full supervision of the public health and control of communicable and venereal diseases. Enactment of a workmen's compensation law. Laws for the care of defective children and to safeguard the health of children all over the state.

Montana.—Large appropriations to the state board of health for the prevention of disease and the care of the sick. New laws for the care of the feeble-minded.

New Hampshire.—Laws to strengthen the state department of health.

New Mexico.—Creation of child conservation board to look after the prevention of disease in newly born children and to guard child health in general. Creation of new state department of health with full power to protect the health of all the people.

New York.—Laws requiring physical examination of children in any employment. Enactment of health and maternity insurance laws. Additional accommodations in the state hospitals for the insane.

Nevada.—Increased powers of the state board of health, which was altogether unable to meet the emergencies of the influenza epidemic.

North Carolina.—Laws requiring physical examinations of public school children. More effective sanitary laws.

North Dakota.—New state department of health with full-time executive and county health boards to be accountable to the state department. Appointment of full-time, trained county health nurse in each county. Medical inspection of school children. Adequate appropriation for venereal disease bureau, as well as appropriation to combat trachoma.

Ohio.—Reorganization of the county health administrative system. Adequate appropriations for prevention and eradication of venereal disease and for sickness prevention activities in general.

Oklahoma.—Medical inspection in public schools. Appropriations for a special tuberculosis bureau. Larger appropriations for the state health commissioner. Proper reorganization of the state health work to the end "that the lives and health of the people may be protected."

Oregon.—Creation of a state hospital for industrial cripples and adequate appropriation for the hospital care of crippled children.

South Carolina.—Larger appropriations for the extension of hospitals for the insane.

South Dakota.—A county nurse or health instructor in each county. Extension of the benefits of the workmen's compensation law.

Vermont.—Medical inspection in the public school. Larger appropriation for state institutions and especially for the tuberculous.

Washington.—Larger appropriations for the state board of health and particularly for the prevention and eradication of venereal disease.

West Virginia.—Creation of hospital for the feeble-minded and hospital for the colored insane. Creation of a state health commission for the general supervision of state hospitals. Strengthening of the state health department.

Wyoming.—A full-time state health officer. More authority for the state board of health. Revision of antiquated health laws. The governor says, "We are spending large sums of money to protect our live stock from disease, but I fear we have been overlooking the welfare of our people."

All mankind is divided into three classes: those that are immovable, those that are movable, and those that move.—Arabian proverb.

NEW INSTRUMENTS AND EQUIPMENT

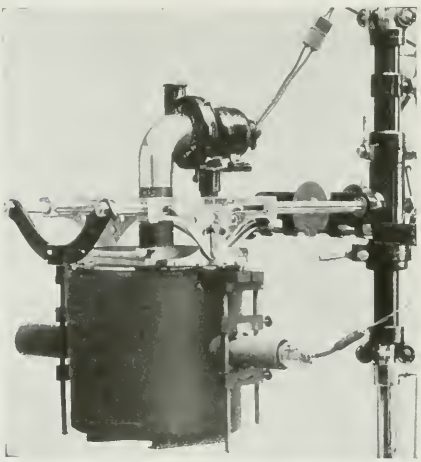
VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.

Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast Avenue, Oak Park, Illinois.

Coolidge Tube Shield and Cooling Unit

The apparatus shown in the accompanying illustrations has been devised for the purpose of protection from the rays, as well as for keeping the x-ray tube from becoming overheated.

The shield is made of exceptionally heavy x-ray proof rubber and is of a size that will fit any lead glass bowl not over 9 inches in diameter. It is so arranged that the end-sleeves and slides will securely support a Coolidge x-ray tube. There is no metal whatsoever in the shield itself, and all metal connections are safely insulated. The protective collars cover both stems of the tube, thus insuring both the operator and the patient against unnecessary exposure to the rays. The shield is so fashioned that it does not interfere in any way with the mechanical action of the tube stand and can be attached to any stereoscopic stand without requiring the services of a mechanic.



Engeln Coolidge tube shield and cooling unit.

This unit also includes a powerfully built motor of high speed with an exhaust fan specially constructed for this purpose. This fan runs silently, exhausting the air away from the patient and at the same time keeping the tube cool.

The rubber shield has an aperture 3 inches in diameter and is equipped with a slide filter.

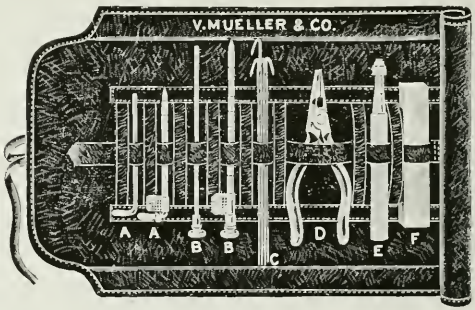
This outfit can be converted into an up-to-date treatment outfit by attaching it to a tube stand and reversing the tube carriage as shown in the illustration.

Foreign Body Localizing Instruments

Among the number of devices adopted by the Medical Department of the United States Army for the localization of foreign bodies in connection with the x-rays, is the apparatus here illustrated, which was originally devised by the late Dr. Walter S. Sutton of Kansas City while in charge of the American Hospital No. 2 at Juilly, France, during the spring and summer of 1915.

The best method of procedure with this set of instruments as now supplied has been described by Capt. E. S. Skinner, Medical Reserve Corps, in the *American Journal of Roentgenology*, as follows:

"After the shadow of the foreign body has been located by means of the axial ray upon a large screen, firmly supported about six inches above the surface of the part examined, the surface is painted with iodine, cocainized, and a small skin incision made in the center of the shadow. The special canula bearing the blunt or sharp trocar, as circumstances may indicate, and held by a strong clamp at right angles, is then entered through the skin incision. The room is darkened and, under the guidance of the x-ray, the instrument is driven through the tissues. As



Set of Sutton's foreign body localizing instruments.

long as the point is advancing straight toward the anode (and hence toward the foreign body), the shadow of the point will be hidden by the shadow of the upper portion of the instrument.

"When the trocar strikes the foreign body, the patient invariably complains of a sharp pain. Contact is then verified by slight waving movements of the point of the trocar, which can be made to cause the foreign body shadow to describe a circular excursion on the screen.

"The current is now cut off, the screen removed, and the room lighted, while the operator continues to hold the trocar immovable. Next, the trocar is withdrawn from the canula and one of the small hooked piano-wire indicators inserted in its place, while the hook of the latter is held against the foreign body, the canula is withdrawn and the wire snipped off one-quarter inch above the skin. Over this a fairly thick dressing is applied. If other foreign bodies are present, each may be localized in the same way. On the operating table each indicator may be readily followed by the corresponding foreign body. The particular advantages of this method are: (1) operation may almost always be done under local anesthesia, (2) changes in the position of limbs or body do not vitiate the result, (3) there are no calculations to introduce a possible mathematical error, (4) the localization may be carried out aseptically without sterilizing the hands."

The method is pronounced to be very satisfactory by those who have had experience with it, as there are no complicated mathematical problems to be solved and no difficult estimation to be made, inasmuch as the hooked piano-wire always leads to the foreign body.

Simplified Gas and Oxygen Apparatus

In a former issue of THE MODERN HOSPITAL we have described in detail in this department the Connell gas-oxygen apparatus, made for use in our home hospitals.

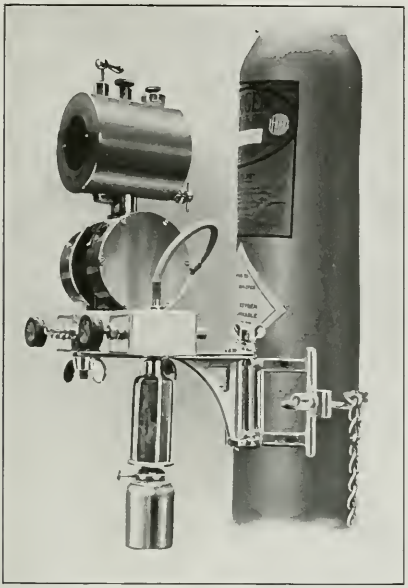


Fig. 1. Oxygen apparatus strapped to large gas tank.

For army use in the base hospitals overseas, it was found that the ordinary type of apparatus with the regular large truck and roller base together with the large cylinders proved rather cumbersome to handle and shift about the

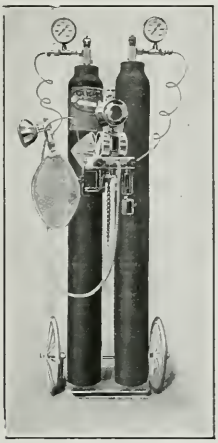


Fig. 2. Complete gas and oxygen apparatus, mounted on small truck.

room. As a rule, two persons are needed to do the shifting, one to handle the truck on which the cylinders are mounted, and the other to handle the machine. Accordingly a number of anesthetists at various base hospitals overseas called for a smaller, lighter outfit, so arranged that they still could use the large cylinders. The result of this demand is what the manufacturers call their "Overseas Model."

Instead of using reducing valves on the cylinders and conducting the gases by means of rubber tubing, high pressure copper tubing does this work, and a small gauge is attached to the tank, showing the pressure of the gases. All the other principles of this model are the same as those embodied in the portable hospital and other special models.

The machine is supported by means of a specially designed universal bracket, which permits the attaching of the apparatus to any size tank and also makes possible the adjustment to any height desired. Figure 1 shows how the apparatus is strapped to the tank, and Fig. 2 the complete outfit mounted on a small truck.

Electric Instrument Sterilizer for Office and Dressing Rooms

The Castle-Rochester electric sterilizer as now offered has several new features which are a great improvement on any other type in use. The cover is opened and the tray with instruments lifted out of the water by simply pushing down a cool lever, either by the use of a hand or with the forearm. The tray stays up, so that the instruments drain and cool before they are taken from the sterilizer. Sharp instruments may be laid in the trays and then slowly immersed in the water without injuring their cutting edges.

Castle-Rochester electric sterilizer on high stand.

Economical operation of the sterilizer is made possible by having three heats. The high heat, which uses the most current, is used only to bring the water quickly to the boiling point. The heat control switch at the end of the sterilizer has an indicating dial which shows whether "high," "medium," or "low" heat is turned on.

The sterilizer will not burn out, nor can the instruments be spoiled by overheating, because of a safety device, which cuts the current off automatically as soon as the water in the sterilizer becomes very low.

The sterilizer is made of heavy copper, coated with tin on the inside. On one end it is supplied with a water

faucet, doing away with the necessity of carrying the sterilizer to the sink, whenever it is emptied.

The outfit is shown here mounted on a metal stand, white enameled and, where a suitable table has not already been provided, this makes a practical and convenient equipment. The shelf is large enough to accommodate a number of instruments before or after they are sterilized, and drops down out of the way when not in use.

New Wristlets for Securing Patients' Arm or Hand on the Operating Table

The wristlets are made of buckskin, lined with chamois. They are fitted with a special lock that permits them to be adjusted instantly and securely locked, and also with a brass nickel-plated adjustable clamp, that permits of their being used on any of the standard types of operating tables by simply clamping them to the table top.

"White Line" universal wristlets.

The use of the wristlets eliminates the time and inconvenience occasioned by having to tie the patient's hands to the table or to his side while administering the anesthetic.

The wristlets are so made that they can be used for holding either the arms or the legs.

Light and Heat Treatment Apparatus

The great varying usefulness of radiant heat has been fully demonstrated in a field ranging from ankylosis, neuritis, and various skin diseases, to the treatment of infantile paralysis in the later stages. The advantages of radiant heat over that of superheated air are admitted to be quite pronounced.

Fundamentally, this apparatus is constructed on the unit principle, and the single unit outfit is intended for the treatment of relatively small surfaces. The double-jaw-leg attachment is a universal hinge and permits the adjusting and locking in any conceivable position to hold the apparatus in the position desired within the possibility of being supported by the legs. The adjustment of these legs can be quickly made, only a turn or two of the set screws being necessary to permit the placing of the legs in the position required in any particular case.

The ratchet hinge on one side of one unit is so arranged that it will fit into the slot on the adjacent side of the second unit; thumb nuts permit of locking units at any desired angle.

Three units give a range in the direction of radiation of 180 degrees to a perfect triangle formation, and, with the complete three-unit apparatus and supporting stand, it is possible to treat any part of the body.

Figure 2 shows the three units applied in hospital treatment for patients confined to bed. A valuable feature of this apparatus is the ease with which the complete apparatus can be transformed into an electric bath cabinet. In this way the patient can be given the bath in the special bath department, where this is available, by the use of the arms and curtain; or, if more convenient, the complete apparatus can be placed alongside the patient's bed, or the patient given the electric bath while in bed.

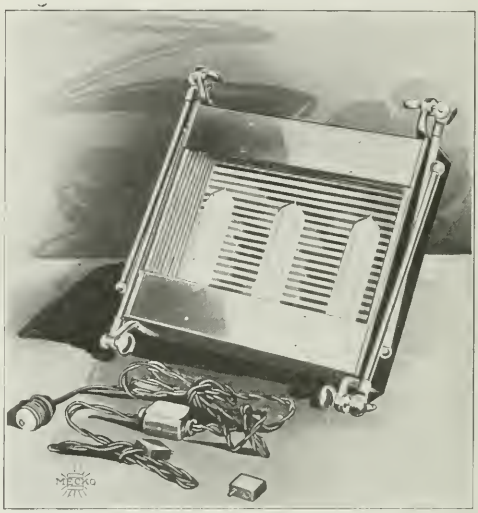


Fig. 1. Mecko light and heat treatment apparatus, folded.

Especially for smaller institutions not equipped with a department for giving light and heat treatments, this interchangeable apparatus should be very useful, as it will enable them to put these treatments at the disposal of their patients at a comparatively low cost.

Fig. 2. Mecko light and heat treatment apparatus, in use with patient confined to bed.

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

Vol. XII *April, 1919* No. 4

A NAVY BASE HOSPITAL OVERSEAS

U. S. Navy Base Hospital No. 4 Composed of Portable Buildings Shipped From America—How Practical Difficulties in Situation and Water Supply Were Met—Rapid Construction Due to "Win-the-War" Spirit of Enlisted Men

By LUCIUS W. JOHNSON, D.D.S., M.D., Lieutenant-Commander, Medical Corps, United States Navy, and RAYMOND V. MILLER, C.E., M.E., Lieutenant, Civil Engineer Corps, United States Navy

THIS hospital is, so far as we can determine, the only United States naval base hospital overseas built of portable buildings shipped from America. At other bases, buildings already erected have been used and have needed only to be altered and equipped to meet the requirements of a hospital. This hospital, in its erection and equipment, has brought up many new problems, which were interesting because there was no precedent to follow and because the national customs of work and equipment are so different from those at home. These national customs were found to be exceedingly important because the necessity for rapid construction and early commissioning limited us to equipment which was already manufactured and available in the local market. This refers especially to the lighting, heating, and plumbing fixtures and power house equipment.

Fig. 1. View of U. S. Navy Base Hospital No. 4 from the harbor.

In its original conception, a naval base hospital was a mobile unit of 250 beds with all equipment needed for general hospital work. The units were to be used singly, or any number of units combined, as required. It was soon found, however, that the size and weight of the buildings and furniture were so great as to make mobility impracticable, and conditions at naval bases were such that mobility was not essential. The custom in the land in which this hospital is located is to build for all eternity, and nothing could be less mobile than the massive construction of the drains, plumbing, and all fittings of native production. It is, therefore, a permanent institution, and negotiations are already under way to turn it over to the government of this country when we go home.

The work of construction was under the direction of Capt. D. N. Carpenter, Medical Corps, U. S. N., whose orders were to construct the hospital and to command it when completed. Payment was on the cost - plus - percentage basis. The work of unloading the hutments and furnishings from the ship began on May 24, and the hospital was opened to receive patients on October 11.

About eleven acres of an old estate known as "White Point" are occupied by the hospital. Numerous trees on the grounds add to the attractiveness of the spot and afford shelter from the gales. Their scattered positions governed the location of the buildings and it was found possible to complete the work without sacrificing a single tree.

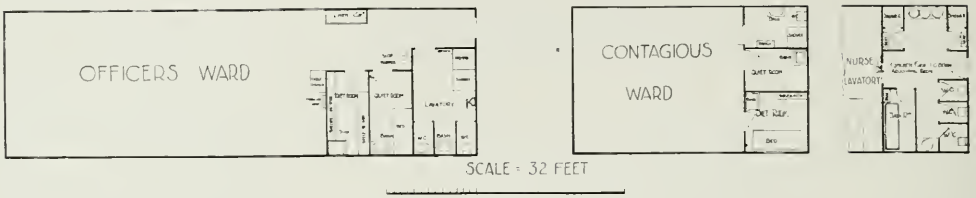


Fig. 2. Officers' ward and contagious ward.

The ground is rolling and slopes down to the harbor from the old house, around which the new buildings are distributed.

The hutments are of the portable type and were shipped from the United States in fifty units, each unit being a complete building 20 by 32 feet. There were panels for side walls, floors, and roofs; also panels containing doors and windows. These panels, together with the necessary stringers and other beams, were made up for shipping in bundles which occupied as little space as possible. Floor and wall panels are of double thickness with air space and building paper between. The buildings are of very light structure but have been found strong enough to withstand the heavy storms to which they are frequently subjected. By placing two or more of the 32-foot units together, buildings of various lengths were obtained to fit our needs. Thus four units produce a building 128 by 20 feet, which is the size used for the main wards, general mess hall and hospital corps barracks.

Six main wards (128 by 20 feet) are located in an east-and-west line in two rows of three each, practically in the center of the site, with the operating pavilion on a north-and-south line directly east of this group of wards. The general mess hall, the hospital corps mess hall, and the officers' ward are so placed along the line of wards that runways coming from them lead to the doors at the ends of the wards. The elevations of the various buildings were adjusted so as to eliminate as far as possible any steep slopes in the connecting runways. These elevations were complicated by the rolling character of the ground, by the hard rock which came close to the surface at the high points, and by the excessive cost of lumber for the foundation posts, all these factors combining to make the adjustment of elevations important and difficult. Thus, in building the runway from the general mess hall to the four wards below it, five different elevations had to be connected, the mess hall being 13 feet above the lower wards. Instead of making the slope uniform, sloping steps were introduced at intervals so that two of the wheels of a stretcher would always be on a slope of only slight inclination.

THE MAIN WARDS

These are uniform in size, arrangement, and equipment. One of these wards holds forty beds without crowding, and the quiet room provides one more bed for a special case. At one end of the ward is the toilet with two water closets, two wash basins, urinal, and two shower baths. The showers have a concrete curbing and a flooring of an impervious substance laid on like cement. The curtains are of rubber sheeting, made by our hospital tailor, and hung on rods of gas piping. At the side of the showers is a small space (3 by 3 feet) where a man may stand to dry himself; this space is floored with the same impervious substance and fitted with a wooden grating. Beside this is a bench with grating in front and a shelf with hooks overhead for convenience in dressing. A wooden screen projecting out from the side wall protects those using the toilets from view when the door is opened. On the back of this screen is a shelf on which bed pans and urinals are placed, and in the corner formed by the screen and wall is kept the large laundry bag, supported by hooks in the walls. Next to the toilet is a quiet room large enough for one bed and with running water. The walls of the toilet and quiet room are lined with tar paper and filled with sawdust to make them sound proof. Next to the quiet room is a small diet kitchen with sink and hot and cold water. Alcohol stoves and burners vaporizing the alcohol under pressure are used in cooking. There is also a built-in linen closet with slats for shelves so that the heat from the pipes below may keep the linen dry, a necessity in this cold, damp climate and known locally as a "hot press." Against the wall of the diet kitchen is the nurse's writing table with the telephone, medicine closet, and switches to control the lighting of the ward. The buildings are heated by steam and have for radiators 6-inch cast-iron pipes, which run the length of the ward close to the floor on each side. The floors are covered with a good quality of dark brown linoleum which extends to within a foot of the walls. This serves to keep out the wind and is necessary because the shrinkage of the floor panels has left wide cracks between the floor boards. At the

Fig. 3. Block plan of the U. S. Naval Base Hospital No. 4. This plan shows the hospital buildings as they stood at the time of the cessation of hostilities and the plans under way at the time for future extension.

1. Lodge.
2. Site for barracks.
3. 4-inch water main.
4. Athletic field.
5. Road 20 feet wide.
6. Water tank and dairy.
7. Store, barn, and workshop.
8. Garage with pigpen to left and machine shop and petrol station.
9. Garden.
10. Nurses' home (shaded portion) with area and conservatory.
11. Nurses' annex (32 by 20 feet) and future extension of nurses' home (dotted lines).
12. Road 12 feet wide.
13. Lodge.
14. Administration building (96 by 20 feet) with morgue and Red Cross building to the right.
15. Chapel, 40 by 20 feet.
16. Y. M. C. A. hut, 100 by 40 feet.
17. Power house, 32 by 32 feet.
18. Pump house for salt water flush.
19. 8-inch iron pipe.
20. Future extension for laundry.
21. Contagious unit, 30 by 20 feet.
22. Future extension for contagious units.
23. Latrine, 30 by 20 feet.
24. Hospital corps barracks, 128 by 20 feet.
25. Hospital corps mess hall, 84 by 20 feet.
26. Officers' ward (64 by 20 feet) with future extension to right.
27. Road 12 feet wide.
28. Mess hall (128 by 20 feet) with future extension to right.
29. Future extension for wards.
30. Existing concrete pier extended 100 feet.
31. Six wards, each 128 by 20 feet.
32. Future extension of wards.
33. Operating pavilion, 64 by 20 feet.
34. Signal station.

sides, where the linoleum does not cover the floor, these cracks have been utilized as additional ventilators, and the cold air coming up through them strikes the radiators before being diffused. Half-round strips of wood protect the edges of the linoleum, and the spaces between these strips and the walls are painted white to insure cleanliness. The walls are finished in distemper (cold water paint), a pale green being used for the walls and white for the roof and beams. Three roof ventilators are provided in each ward, and the general structure is such as to insure plenty of air circulation. The electric lights are placed in the midline of the wards, one to every 20 feet; they are alternately 20 and 30 candle power. All ward lights are controlled from the switch at the nurse's desk, and over her desk is a light on a separate switch. The roofs are covered with rubberoid paper, painted with a coat of mastic and gravel.

The officers' ward is in all respects the same as the main wards except for its smaller size (64 by 20 feet). It holds seventeen beds. The three isolation wards are each 32 by 20 feet, and each holds ten beds. They are somewhat different in arrangement from the main wards, as shown by the plans.

THE GENERAL MESS HALL

This building is 128 by 20 feet. It is a combined galley and mess hall. At the north end are two storerooms, one for dry and one for cold stores. The floor of galley and storerooms is of concrete. Two ranges are provided, also two steam kettles, one of 80-gallon and one of 50-gallon capacity. A large wooden sink (6 feet by 18 inches by 18 inches) with steam pipe for live steam, also hot and cold water, provides dishwashing facilities. Next to the sink is a slop hopper for dirty water, and both empty into a large underground grease trap outside the building, the trap being built of brick and fitted with baffles to keep the grease out of the sewer. A serving counter separates the galley from the mess hall. Near the counter is a plate-warmer, on the mess hall side. The messing is by the cafeteria system, which insures rapid and economical service with hot food for every man. The men form in line in the mess hall, and, as each passes the plate-warmer, he takes from it the necessary hot dishes. On the counter are large pans containing hot meat and vegetables, also desserts on individual plates. As each man passes along the counter he holds out his plate and is served with the food he wants and as much of it as he asks for. Any articles he does not care for he passes by. After being served he goes to his place at the table and sits down to eat. On the

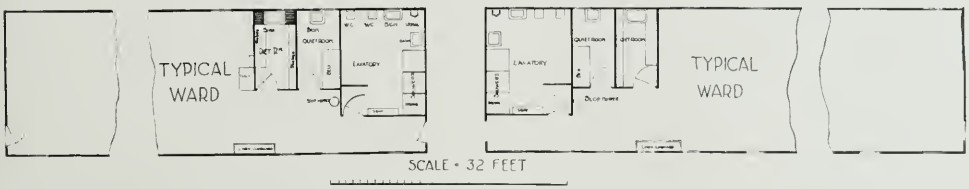


Fig. 4. Typical wards of the U. S. Naval Base Hospital No. 4.

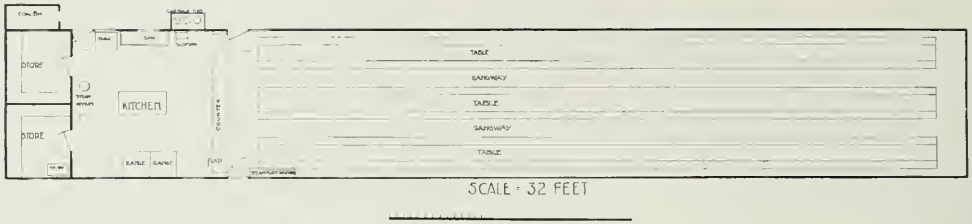


Fig. 5. Hospital mess hall.

table are bread, butter, coffee, and eating utensils. The building was designed to seat two hundred and fifty but will accommodate three hundred with comfort. Food for the adjacent wards is also prepared in this building and transported in carriers to the wards by the runways. The carriers are hot-water-jacketed to keep the food warm while it is being taken to the wards.

At the south end of this building, and separated from the mess hall, is the receiving room where patients are brought for admission. They are examined here and distributed to the wards by the runways on wheeled stretchers.

OPERATING PAVILION

This building is 64 by 20 feet. It has the laboratory, two operating units, and the x-ray laboratory. Each operating unit consists of operating room, etherizing room, and sterilizer room. The sterilizer room is used also for a wash room in preparing for operations. The operating units are finished in Keene's cement laid on a backing of fibro-plaster board and coated with white distemper. Each outside panel has a window, and there is a large skylight of ribbed glass over the operating table. A cluster of five 50-candle-power lamps with a reflector provides light for operating at night. The floor is of a composition laid on like cement. The sterilizer room of the north unit has a standard battleship sterilizer, a compact unit combining hot and cold sterile water tanks, and instrument, dressing, and basin sterilizers. The heating is by kerosene burners vaporizing the kerosene under pressure. There are also two sinks with hot and cold running water.

The x-ray laboratory is equipped with an x-ray transformer, a table for horizontal fluoroscopy, a vertical fluoroscope, a stereoscope, a plate-changing device for rapid chest work, and an overhead trolley system allowing an easy change from the tube stand to the tube beneath the table. The transformer rests on a solid concrete pier extending to the ground and separated from the building to prevent vibration. A dark room was built adjacent to the x-ray laboratory. It is entered by a baffle and is equipped for developing by the tank system. A space 4 by 16 feet adjacent to the x-ray laboratory is utilized as a toilet and dressing room.

The laboratory has a work table along the windows on the east side, with gas and running water. On the north side are sink and drain boards, distilling apparatus and water-power centrifuge. There are also the usual sterilizers, paraffin oven, incubator, refrigerators, and electrical centrifuge, the latter on a concrete block resting on the ground to avoid vibration.

THE ADMINISTRATION BUILDING

This is divided into offices, store rooms, bedrooms for pharmacists, nose and throat room, dispensary, linen room, toilets, and mess hall for pharmacists. The telephone central is located at the east end of the corridor which runs across the building, adjacent to the offices of the executive officer and the officer of the day.

HOSPITAL CORPS QUARTERS

There are attached to the hospital about one

Fig. 6. Nurses' home.

hundred and twenty-five enlisted men of the United States Navy, hospital corps men (male nurses), cooks and mess attendants, carpenters, clerical force, plumbers, electricians, chauffeurs, and firemen. They are quartered in four buildings forming the western end of the hospital group. There are two barracks, 128 by 20 feet each, a mess hall 84 by 20, and a latrine 32 by

20 feet. The mess hall is similar in arrangement to the general mess hall. The latrine has a 6-foot trough urinal, six water closets, five showers with hot and cold water, and a wooden sink 22 feet long by 14 inches deep, provided with fourteen wash basins and cold water taps. The floor of the latrine is concrete. The barracks will accommodate about sixty men each. Each barracks

Fig. 7. Flotilla of motor ambulances belonging to the U. S. Navy Base Hospital No. 4.

has two separate rooms for chief petty officers, and the north building, Barracks A, has an additional room for three chief petty officers. The rooms are provided with hospital beds; the other men sleep on folding cots. Back of each cot the space is occupied by two shelves with hooks underneath and a curtain hanging from the upper shelf to make a wardrobe. Just above the radiator pipe, about 18 inches from the floor, is a shelf of slats for drying shoes. In this land of rain and mud such an arrangement is important.

WATER SUPPLY

This was a serious problem, as the supply available from the city was limited and uncertain. Furthermore, because of the unstable political conditions, we desired to be as independent and self-sufficient as possible. Therefore an effort was made to secure our own supply by sinking a well on the grounds. The well was bored to a depth of 146 feet, and, as at this depth there was no sign of water, a charge of dynamite was set off, but no water was secured. Permission was then secured to tap the line running to the dockyard nearby, and that is the present source of our supply. It is sufficient in winter but precarious in summer. Two iron tanks were secured, one of 10,000 and one of 2,300 imperial gallons capacity. A brick pier 22 feet high was built, and on this the large tank was placed with the smaller one on top of it. A small reserve is thus provided in case of failure of the supply. In order to lessen our dependence on the fresh water supply and reduce the consumption, as well as to provide fire protection, a system of salt water piping and pumps was installed. This provides for flushing of all toilets and urinals by two Worthington steam pumps, and a third pump delivering 500 gallons per minute was installed to provide additional pressure in case of fire. The salt water system is of 4-inch cast iron pipe and there are nine hydrants. A portable building 14 by 20 feet was used for a pump house and was placed at the bottom of the bank close to the power house. The suction pipe was run out over the mud flats to low water at the end of the pier. At high-water level is a small tank with strainer and a by-pass for use in case of obstruction at the strainer. The tidal range is about twelve feet.

SEWERAGE SYSTEM

This is of 6-inch earthenware piping, except the part of the western line running to the isolation wards, which is of 5-inch pipe. Examination chambers are furnished at all bends so that any part of the line can be cleaned directly. From the junction of the three main branches a 6-inch cast iron pipe was carried over a rock bank about 15 feet high and across the mud flats about 270 feet to deep water. The 6-inch pipes were considered large enough to carry the load, since there was to be a continuous salt water flow through all lines.

In planning the fresh and salt water supply and heating, lighting, and sewerage systems, provision was made for naval barracks to accommodate fifteen hundred men which were to be located in the field adjacent to the hospital, in addition to the

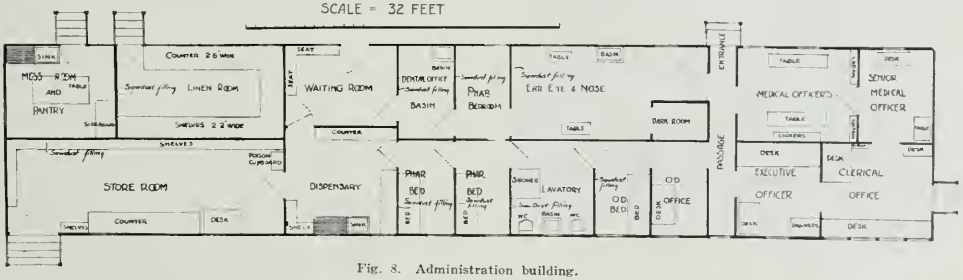


Fig. 8. Administration building.

requirements of the hospital. The sewage from the naval barracks was to be carried by the eastern branch of the sewer. These naval barracks, however, were not completed at the time of cessation of hostilities and were never occupied by more than one hundred men.

HEATING SYSTEM

Radiating pipes giving 1 square foot of radiating surface per linear foot, or 10 square feet per thousand cubic feet of air space, were run on each side of each building. This area is considered ample, as the temperature seldom goes below the freezing point. The distribution from the power house is by high-pressure pipes running over the roofs of the buildings; these are covered with asbestos lagging, wrapped with canvas and coated with mastic. The main steam pipes carry steam at a pressure of 50 to 60 pounds per square inch. In the buildings pressure-reducing valves bring this down to 5 to 6 pounds in the radiating pipes. Because of the shortage of water, the condensed water is drained to the lowest point, below the wards, whence an automatic steam pump returns it to the boilers. Hot water for diet kitchens, shower baths, and operating room is provided by instantaneous steam mixers by which any desired temperature may be secured.

POWER HOUSE

This is of brick with corrugated iron roof. It is 32 by 20 feet, divided into a boiler room and a machinery room. Three vertical boilers, each 6 feet 6 inches in diameter by 14 feet high, were obtained. These have horizontal flue tubes giving 450 square feet of heating surface in each boiler and 22½ square feet of grate surface. They are so connected that they may be used singly or as a group.

The electric current is generated by two belt-driven direct-current generators, each giving 15 kilowatts at 220 volts. The engine driving the generators are of single-cylinder, high-speed, vertical type. This equipment supplies light to the hospital buildings and power for the x-ray machinery as well as the moving picture machine in the recreation building. In order to use the 110-volt rotary converter that came with the x-ray outfit, an additional motor of about 12 horse power was installed to drive this converter from the 220-volt direct-current main.

Coal for the power house is landed at the pier in bags and transported up a wooden runway to a coal pocket of 150-ton capacity outside the power house.

Fig. 9. Runway connecting Ward 5 (background) with sick officers' ward (left) and hospital corps mess hall (right).

NURSES' HOME

For the accommodation of the thirty nurses attached to the unit, a substantial old house that was already on the grounds was refurnished and modernized. Of course, no mere man could have taken a moldy old house and transformed it into a habitation in which women could live and be happy, so we were fortunate in having two American ladies to take charge of this feature. Mrs. Charles M. Hathaway, wife of the American consul at this port, and Mrs. Peter Clark Macfarlane, wife of the author, planned the decorating and furnishings and chose the color schemes for the various rooms. They spent many days in selecting furniture and making curtains. So excellent was their work and so wise their selection that when the nurses arrived and saw the completed house, there was nothing but praise and delight in the comfort and beauty of their home.

In addition to the redecorating and furnishing, the house was fitted with steam heat and electric lights; additional showers and toilets were installed. Adjoining the house is a wonderful old-fashioned garden enclosed in a high wall, against which are trained pear and peach trees. There are vegetables of all kinds and many varieties of flowers. The roses and violets are still blooming in December.

Eighteen nurses are quartered in the old house. The additional twelve were provided for by erecting an annex 32 by 20 feet on the tennis court back of the house. The beds are placed six on a side with an aisle between, and curtains are hung so that each bed may be screened off in a small cubicle. On the wall back of each bed is a shelf with hooks underneath and a curtain to make a small wardrobe. The general effect is such that all the Americans who see the place at once call it "the Pullman car." The beds are of the standard hospital type, high, of white enamel, and to provide storage room a cabinet was designed and built for each bed, just high enough to fit under the bed and with a cupboard and drawer which hold the clothing and toilet articles. This building also has steam heat and electric light. On the

north end was built a lavatory with concrete floor which contains a bathtub, three water closets, two showers, drying room, and four wash basins.

In addition to the above-mentioned buildings, several smaller ones have been found necessary and have been constructed of square panels. There is a Red Cross office and storehouse; a chapel in which Catholic and Protestant services are held; a brig with two cells, which we have never had to use for the purpose for which it was built; a commissary storehouse and office; a bagroom and morgue. The morgue proved to be a most important part of the hospital, for one of the men of the unit was an expert embalmer and all the dead of the navy within a radius of several hundred miles were sent here to be prepared for shipment home. The American Y. M. C. A. has constructed a building on the hospital grounds which provides reading rooms, pool table, shuffle board, barber shop, canteen, postoffice, moving pictures, and other devices for amusement, as well as educational courses, which serve to keep up the morale during the long days of convalescence. A stage is provided, and we found among the members of the unit actors, stage electricians, and stage carpenters who have put on a number of excellent productions. The curtain, showing a destroyer in a rough sea, is an excellent piece of work done by one of our enlisted men.

A very great part of the credit for the rapid construction of the hospital is due to the enlisted men of the unit. Their "win-the-war" spirit was most admirable. They worked without regard to fatigue or late hours. They worked several times as rapidly as the native laborers and much more intelligently. Six native painters painted one of the wards in a week; five of our men painted one of the same size in a day and did just as good work. In one day they unloaded 80 tons of rock from a barge on to a truck, brought it to the hospital, broke it into small size with mauls, and spread it on the roads. They asked that their supper hour be postponed so that they might complete the job in one day.

The doctors, nurses, and enlisted personnel of this unit, with the exception of the commanding officer and the executive, came from Providence and the unit was organized by Dr. George A. Matteson of Providence. The members of the unit were trained at the U. S. Naval Hospital, Newport, R. I., before being sent overseas. The doctors and nurses arrived October 9, and on October 11 the hospital opened to receive patients, the first being the survivors from a U. S. destroyer which had been cut in two by a liner which she was convoying. Two weeks later the influenza arrived, and, in a few days, the hospital had more patients than could be accommodated by the use of its full capacity.

Fig. 10. Rear of operating pavilion. The small projection in the center is the x-ray dark room.

The equipment was furnished in part by the Navy Department and in part by the American Red Cross.

RECONSTRUCTION—THE TUBERCULOSIS PATIENTS' POINT OF VIEW

Results of Census Taken Among Patients at the Wisconsin State Sanatorium

In order to find out what the patients thought about occupations in the sanatorium, the Wisconsin State Sanatorium recently distributed among its people the following questionnaire:

1. What was your everyday work before coming to the sanatorium?
2. What work do you expect to do after leaving?
3. How do you spend your time at the sanatorium? (Tatting, etc.)
4. How would you like to spend your time at the sanatorium? In (a) exercise as at present; (b) work classes, such as in basket weaving and printing; (c) educational classes, such as correspondence or university extension work in agriculture, etc.?

One hundred and twenty-five answers were received.

The inquiry brought out a number of interesting facts. The answers to 1 and 2 showed that a majority of the patients wished to follow their old line of work when they leave the sanatorium, except that a rather large number of women wish to take up tuberculosis nursing. The answer to 3 showed that reading and fancy-work were the most usual diversions, even among the men; only eight out of the hundred and twenty-five were engaged in any sort of productive employment. The answers to 4 showed that exercise as at present employed at the sanatorium does not fulfill any real function as a satisfactory diversion, for all but four wished to try something else. In the answers to 4 (b) basket weaving and printing received very few votes, and in 4 (c) educational classes outstripped manual work in popularity by a large majority.

These results, of course, are merely suggestive. The patients were made to understand that the census was taken merely as a matter of interest and not as a basis for future action. The real question is the desirability of the different sorts of work as a therapeutic measure. Should it seem advisable to organize any of the classes under discussion, the Wisconsin Tuberculosis Sanatorium will have the cooperation of the Extension Division of the University of Wisconsin.

THE APPLICATION OF HOTEL SERVICE TO THE HOSPITAL

Objectionable Institutional Atmosphere Unnecessary—Attention to Details of Comfort and Entertainment Make the Hospital Livable—Specific Suggestions Taken From Hotels and Clubs

By H. V. PETTIT, Superintendent Ottawa Tuberculosis Colony and Illinois Valley Hospital, Ottawa, Ill.

TO the lay mind the term "institution" implies an establishment for the care of the sick, distressed, and unfortunate—the blind, the lame, and the halt—a charity—a place to be avoided

Fig. 1. One thing which contributes a great deal to the homelike atmosphere of the Ottawa Tuberculosis Colony is the social center which is found in the club house where dining room, lonuging room, and library are located.

if possible and a place suggestive of human misfortune. In general this is the lay opinion of all classes of hospitals—public, private, and special—and with some justice. Consequently, when one speaks of "institutional atmosphere" it immediately suggests to the public mind the cold, barren walls of a large building, the misfortune and suffering of human beings, the absence of cheer, tile walls and floors, bare rooms, white enamel, sanitation to the extreme, and confinement. This impression is undoubtedly due in a measure to the fact that the modern hospital is the outgrowth and development of the almshouse and purely charitable institutions, and it is conceded that the original institutions for the care of the dependent and infirm were most forbidding and almost repulsive. It was only the most destitute and unfortunate who availed themselves of their benevolences.

But, notwithstanding the wonderful development of the hospital, structurally and scientifically, and the introduction of unnumbered added comforts and conveniences, there still remains a public antipathy toward it. The average hospital of today has only partially succeeded in eliminating the so-called "institutional atmosphere" which every layman feels upon approaching it and even more strongly when he enters its portals.

In the early institution which housed both the sick and the other dependents, the advantage of segregating the sick from the other inmates was eventually recognized, and more particularly with the advent of scientific medicine. This brought about the beginning of the hospital which was intended exclusively for the care of the sick. Since it is basically a medical institution, every step in its development has been viewed primarily from a medical standpoint, and today we all know that the practice of modern medicine has become so complex and so dependent upon the hospital that it is impossible to render scientific medical service without its aid.

It is obvious that the hospital must always be a medical institution, and its greatest possibilities for development are in the medical field. However, is it not possible that in our endeavor to perfect the hospital medically we have been inclined to ignore another side, also capable of improvement, which might aid in a great measure to offset the undesirable institutional atmosphere? My conception of an ideal hospital is one which in the proper proportions combines the medical efficiency of the thoroughly modern hospital with the comforts, conveniences, individual service, and genial atmosphere of the thoroughly modern hotel or club. A few institutions have accomplished this to a marked degree—but apparently only a few.

First-class hotel or club service is somewhat

Fig. 2. The main dining room of the Ottawa Tuberculosis Colony.

expensive and necessarily can be provided only for private patients, but it is this class in every community which contributes most to the support of the hospital and represents the backbone of public influence, either for or against any institution. These facts alone justify the introduction of high-class hotel or club service into the hospital, much of which also adds to the comfort of all patients.

Specifically, here are some of the hotel and club features which the hospital might adopt advantageously:

The front office should be inviting, easily accessible, arranged to give information quickly and accurately, and in charge of competent clerks. It should be decorated harmoniously and equipped with comfortable chairs and settees and other conveniences for the comfort of visitors and patients. First impressions are made in the office, and, if it presents a cheerful, comfortable, and pleasant atmosphere, much is gained.

The psychological influence of environment is well recognized, as is the beneficent effect of pleasant surroundings. That the progressive hotel operator fully appreciates this, is evidenced by some of the recent wonderful hotel creations. Within limits, the more a patient can be made to forget that he is in a hospital, the better it speaks for the efficiency of the management. This can, at least, be partially accomplished by the careful arrangement, equipment, and decoration of his room. Plain but harmonious and soft wall colors, hangings, and rugs, a lighting system which does not tire the eyes and which can be dimmed, a private bath, a telephone, a writing desk, comfortable, easy chairs, an electric plug for connecting a heating pad, a portable reading lamp, and an electric toaster and fan, all help to make the patient forget his troubles. Beds equipped with rubber-tired wheels and large doors which make it possible for the patients to be rolled out to an inviting sun parlor furnish a relief from the monotony of their rooms to many patients who would otherwise be restive under their enforced confinement.

Daily papers, available for all patients who are in condition to read them, should be supplied.

Vacuum bottles add much to the comfort of the patient and save steps for nurses.

The possibilities for the application of hotel or club service to hospital dietetics are necessarily limited. However, there are many patients on full diet who appreciate a reasonable choice of foods, such as is provided in the table d'hote hotel or club plan, and these patients should be presented with a bill of fare and be permitted to choose from it. There are also great possibilities to be found in tray service by adding the little touches so frequently ignored. First of all, large trays should be used, so that there is ample room for the patient to serve himself with comfort. There is too often a tendency to serve crowded trays. Foods should be daintily garnished and served in an appetizing manner. Finger bowls make for high-class service and

Fig. 4. This beautiful, sunlit pergola is a place of true enjoyment to the patients of the Ottawa Tuberculosis Colony.

Fig. 3. The old-fashioned fireplace and easy chairs make the lounging room and library of the Ottawa Tuberculosis a place of real comfort.

serve a useful purpose. Dishes, too, are an important consideration. There should be a complete complement of china ware of simple, dainty pattern, which should include individual casseroles, small individual platters, toast covers, etc.

So much for equipment and service.

Probably one thing more offensive to patients and visitors than anything else in connection with the hospital, is the peculiar "hospital odor"—the combination of antiseptics, ether, and body emanations. The location of the operating rooms, duty rooms, and kitchens with relation to the patients' rooms have much to do with this proposition. If the hospital is not well arranged in this respect, there is all the more reason for making a special effort to secure ample ventilation. With sufficient care and effort, odors can be practically overcome, and many hospitals have succeeded in doing so. Several new metropolitan hotels have gone to great expense in installing special machinery to wash and purify thoroughly the air of their dining rooms, kitchens, and lobbies.

For the special hospital, such as the tuberculosis hospitals, institutions for nervous and mental cases, sanitariums and "rest cures," there are even greater possibilities for the application of hotel service than in the hospital proper. In these a large percentage of the patients are not bedfast and are in a physical condition which permits them to be up and around, and they can, to a great extent, be treated as "guests" quite as much as patients. With these patients the problem of entertainment is a very important matter, and, if intelligently directed, the moving pictures, miniature golf, travel lectures, musicales, holiday celebrations, checkers and chess, are of great value.

A comparatively recent innovation which can hardly be credited to the hotel, but which is rapidly being incorporated into even many of the best hotels, is the popular cafeteria system of serving food. This system could undoubtedly be used to advantage in hospitals serving food to a large number of employees and in public institutions for the care of the tuberculous and insane.

The hotel and hospital are very similar. Their common function is to provide creature comforts and care—one for the well, the other for the sick and each has much to learn from the other.

DEPARTMENT OF ANESTHESIA AT THE ROYAL VICTORIA HOSPITAL, MONTREAL

Importance of Properly Conducted Anesthesia Now Generally Recognized—The Question of Remuneration for the Anesthetist—Two Kinds of Masks Used in Ordinary Operation—Other Instruments and Apparatus

By W. H. HOWELL, M.D., Chief Anesthetist, Royal Victoria Hospital, Montreal

In no branch of medicine or surgery can there be said to have been a greater improvement during the last two decades than in anesthesia. Twenty years ago anesthetics were generally administered in large hospitals by junior interns who looked upon this work as an irksome task, to be undertaken only because it might lead to something better. Moreover, they hoped to be able to learn surgery by devoting the larger part of their attention to the operations and as little as possible to the anesthesia. They received no systematic instruction and as soon as possible took up other work.

In some hospitals in Great Britain, the anesthetics were given by students under the nominal supervision of clinical tutors. The Clover's Inhaler was generally used for the administration of ether. No preliminary medication was used, and the upper air passages were usually full of secretion with consequent cyanosis. So irregular was the course of anesthesia that vomiting and temporary cessation of respiration during the operation were common events. Frequently the operation had to be interrupted while the surgeon helped the anesthetist to restore the patient. It was a common thing for the patient to vomit for hours after the operation. The horrible sensations he had experienced in taking the anesthetic and in recovering from it made him remember it as the worst part of his operation.

With the gradual improvement in surgical technic and the extension of the field of the surgeon's activities came the feeling that he must be free to devote his undivided attention to his work without the interruption and worries connected with anesthesia. In addition it was also recognized that improper anesthesia seriously compromised the patient's chances of recovery.

Since that time not only the surgeon, but the public, also, have awakened to the importance of properly conducted anesthesia. Private patients are prepared to pay for its benefits. A gradually increasing number of medical men, being assured of a reasonable livelihood, have become willing to

give all their time to this department of surgical work. Most first-class hospitals have now one or more attending specialists in anesthesia who administer the anesthetics to private patients, are available for difficult public cases, train interns, and teach students.

The question of remuneration of the specialist presents certain difficulties. If his fee varies according to the nature of the case and the financial status of the patient, the latter, comparing notes with others, often thinks he has been unjustly treated and blames the hospital. If the hospital sets a certain definite fee or scale of fees for the anesthetics, there is less likelihood of dissatisfaction among the patients.

The anesthetist is only human, however, and it is not to be wondered at if, being paid by the case, he prefers to take two short and unimportant cases occurring at the same time to a long and serious one, leaving the latter to an intern.

Perhaps the most satisfactory way is to have the anesthetist paid a proper salary. He is then free to take the cases which require him most and assign the less important ones to his assistants. It is very important that he should be always available. The more work he does outside the hospital, the more often is he not to be found when wanted. For this reason, it is a good principle to pay him enough to make it worth his while to do no outside work and to confine himself solely to the work of the hospital.

For the routine public work a variable number of assistants is necessary. They may be interns or nurses. Interns may be appointed for short terms such as three months, the juniors serving in rotation. In this way a certain proportion of the house staff acquires a reasonable degree of proficiency, which makes them useful to the hospital in cases of emergency. It is also a very useful experience for the young practitioner and is likely to stand him in good stead when he is waiting for patients. Moreover, no one intending to practice surgery can very well dispense with a practical knowledge of anesthesia. The period of three months, however, necessitates more frequent changes than are convenient for the surgical work. The appointments are better made for six months or a year, but in order to keep men so long as this, it is well to pay them a reasonable salary.

The house anesthetists should reside in the hospital and can take turns to be on duty after the usual hours.

In many clinics trained nurses are used as anesthetists. With them there are less frequent changes than with the interns, but even trained nurses cannot be regarded as permanencies. As soon as the opportunity comes for them to do something else which will pay them better, or as soon as there is a prospect of matrimony, their work will be relinquished.

Anesthesia in the hands of nurses or others without a medical education devolves in most cases into an unvarying mechanical process and the adherence to one method for all cases. Great as have been the advances in recent years, it is not too much to hope that they will be equally great in the near future. It cannot be expected that such advances will be made by nurse anesthetists. For the investigation of the problems of anesthesia a sound medical education is required, and especially a knowledge of chemistry, physics, and physiology. The hospital which employs only nurse anesthetists abandons all hope of having a share in advances in this field. Moreover, the teaching of students is better done by a graduate in medicine. If the students see a woman with no medical qualification in charge of anesthesia, it is only natural that they should conclude that it is a matter of minor importance and easily learned.

This matter also has a medicolegal aspect. In the event of a death on the table the surgeon will have to acknowledge, in case of an inquest, that he was responsible for the anesthesia, as well as for the operation. If asked how much attention he was giving to the anesthetic, he will have to confess, if he is honest, that he was giving little or none. The natural corollary to a statement that he was watching the anesthesia would be that he had only part of his attention on the operation.

The number of deaths occurring from anesthetics has probably been greatly underestimated, as by far the greater number are not reported. Many of these take place in small hospitals, to whose interest it is to have the matter hushed up, and are due to ignorance and lack of skill, either in qualified or unqualified anesthetists.

What applies in the case of the nurse anesthetist applies with additional force to the employment of women who are neither doctors nor nurses.

The highly qualified anesthetist, in addition to having a general knowledge of medicine, must be familiar from long practice with the usual anesthetics and the various methods of administering them. He must not be content to follow one method only or to use the same anesthetic for all cases. It is his business to estimate the condition of the patient and the requirements of the surgeon. He must choose the anesthetic which is most clearly indicated and administer it in the manner best adapted to the case. He must be

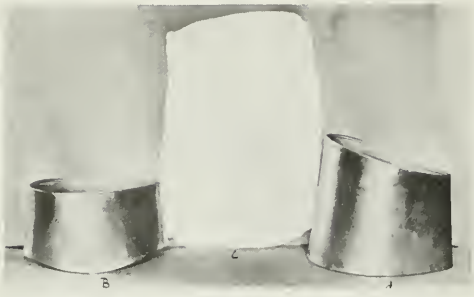


Fig. 1. Inhaler for use in ordinary operation; A, upper part; B, lower part; C, four layers of stockinette sewn together at edges.

alive to the possibilities of improvement in his methods and should have enough initiation to carry out his ideas.

On the staff of the Royal Victoria Hospital there are two attending specialists in anesthesia. They do no work outside the hospital and are paid salaries. The position of the senior one is combined with the position of lecturer in anesthetics at McGill University. He is responsible for the management of the department of anesthesia in the hospital, for the training of interns, and for the practical instruction of students. There are two interns who take the position for a year, live in the building, and are paid salaries. In the Ross Memorial Pavilion for private patients there are two operating rooms and two anesthetic rooms. In each of these four rooms, compressed air, piped from an electrical engine in the garage, is used to operate Connell's anesthetometer, of which we have two. They are in frequent use for intrapharyngeal and intratracheal insufflation in operations about the head and chest. In addition, these four rooms have taps in the walls connected with pipes leading to nitrous oxide and oxygen tanks in the attics. The instrument used for the administration of these gases is a monovalve, of which we have one for each operating room.

We have found it most convenient to use Hewitt's wide bore inhaler with nitrous-oxide stopcock for commencing ether with "gas." This is connected with small nitrous-oxide and oxygen cylinders carried in a light carriage on wheels. If oxygen is required during an operation, this carriage can be quickly wheeled into the operating room and the oxygen administered with Hewitt's inhaler with or without ether.

When the patient is fully anesthetized our routine method is to change to the open method. We have two masks in ordinary uses. One is a fairly large wire frame covered with four layers of stockinette; over this two or more layers of towelling are so arranged as to leave uncovered at the top a space three or four inches in diameter upon which the ether can be dropped. Another inhaler, which is found to be more economical, is shown in Figure 1 accompanying. It consists of an upper part (A) and a lower part (B) which fit into one another and hold between them four layers of stockinette. A pad such as shown in Figure 2 is used to protect the face against the sharp edge of the inhaler and to prevent ether from reaching the face. It has the advantage of being simple, easily cleaned and durable, but can be used only when the patient's face is turned upward.

Considerable ether is saved by this mask because the evaporating surface is at a lower level than the top of the inhaler. Inspired air, therefore, becomes partly charged with ether from the last expiration before it reaches the evaporating surface.

We are not in accord here with many American surgeons and anesthetists in thinking that there is no place for chloroform as an anesthetic. We use it in certain cases, but not often. The instrument used is the Vernon Harcourt inhaler, which enables the dosage to be exactly regulated.

The question of the expense in the use of the large quantities of ether required by the open method has been the subject of considerable thought. We hope to effect a considerable saving by the use of the Ben Morgan apparatus which we have recently commenced to use.

In the public operating rooms we use a machine for the administration of the nitrous-oxide gas and oxygen mixture. Two large cylinders

Fig. 2. Pad to protect face, leaving nose and mouth uncovered.

are carried on a wheeled carriage. Because of the difficulty in obtaining a constant supply of nitrous-oxide gas, we do not generally use it to commence ether in public cases. For intratracheal and intrapharyngeal insufflation Janeway's apparatus is used. Another Janeway's apparatus is kept in the outdoor department, and is used a great deal for tonsillectomies.

In all our operating rooms we have a plentiful supply of Connell's air ways and find them invaluable. A modification made with a tube for the administration of ether vapor is used for operations on the face above the level of the nose.

The anesthetic department is supplied with blood pressure apparatus for use during serious operations.

Every encouragement is given to the head of the department to visit other large centers to see what is being done in his field. Advances in recent years have robbed anesthesia of its worst horrors for the patient. It is, perhaps, not too much to hope that in the future further improvements will enable the patient to look forward to his period of unconsciousness with as little dread as if it were but normal sleep.

Fig. 3. The mask ready for use.

American Red Cross in North Russia

The first Red Cross boat to reach Archangel landed directly in front of the Archangel Monastery, which is located in an eight-sided stockade with a little block-house at each corner. The church is very ancient, and quite the gaudiest building architecturally in Archangel, with white walls, bright green tiled roof and five big domes covered with solid gold leaf. It is easily the most picturesque of all the domed buildings in North Russia, and the big mushroom-shaped domes have a striking appearance as compared with the more slender domes of some of the other churches. The roofs of the block-houses and the stockade-wall are bright red. This is the church which is most largely used for important funerals, which are always superb performances with bands, a hearse built up on great columns with canopied roof, horses covered with white lace, and preceded by a procession of priests in gorgeous robes of gold and silver, before whom is spread a carpet of evergreen boughs.

The Archangel Monastery (Farchangelsky Monastwo).

Professional Reeducation in Italy

The first year of the war demonstrated that professional reeducation is a failure if it is not preceded by an early harmonious physical and moral preparation of the crippled men and followed by a careful supervision of the man in the post-reeducational period. Having in mind these facts, the Italian legislature passed a law March 25, 1917, organizing the whole work of reeducation and creating a National Board for the Protection and Aid of Crippled Soldiers. This law recognized the fact that pre-reeducation, or the physical and moral preparation of the men, must begin from the very time it is realized that a man will remain a cripple for life. For this purpose all the severely injured soldiers are at the very earliest possible time concentrated in two great surgical centers, one at Mantua, in the north of Italy, and the other at Bari, in the southern part. From here the men are distributed to the large regional hospitals at Turin, Milan, Genoa, Bologna, Florence, Rome, Naples and Palermo, the idea being to bring the men as near their homes as possible. At these points the previously commenced physical and moral education is continued and the patients are put to light work. From these hospitals the patients are transferred to secondary regional hospitals, where the physical and orthopedic treatment is completed and the stumps put in the best possible condition. Reeducation begins, and the illiterates are sent to school.

The prosthetic appliances given here are, however, only temporary. From these hospitals the crippled men are sent to the various institutions of reeducation, where they receive their permanent prosthetic appliances, working arms, etc., and are trained in a special trade.

While reeducation is not obligatory in Italy, very few men refuse to undergo the training. There exists now a large association among the crippled soldiers, numbering more than twenty thousand members, whose object is to further their cause.

E. Levi writes on this subject in the *Riforma Medica* of Naples.

THE CARE OF INFECTIOUS DISEASES IN HOSPITALS*

Advantages to the Patient and to Society of Hospital Care—The History of the Theory of Transmissible Diseases—Atmospheric Transmission of Disease Probably of Negligible Importance

By D. L. RICHARDSON, M.D., Superintendent Providence City Hospital, Providence, R. I.

A PROPERLY equipped and well-conducted hospital for infectious diseases is a great asset to any community. It serves a threefold purpose: first, to save life; secondly, as an aid in keeping within bounds and decreasing infectious diseases; and thirdly, it is a convenience and economic saving to afflicted families.

There is no disputing the fact that hospital treatment saves much life, particularly among those suffering from diphtheria, cerebrospinal meningitis, and other diseases, when special skilled treatment and apparatus are required which no home can afford.

Their value in combating or stamping out infectious diseases may be questionable, but undoubtedly they have played a part. Beginning as early as 1865, hospitals for contagious diseases were erected in England, first for scarlet fever, and later for diphtheria. Subsequently the London fever hospitals admitted measles, whooping cough, typhus fever, puerperal fever, and epidemic cerebrospinal meningitis. In examining the effect they have had on the incidence of scarlet fever in the population, it must be admitted that, although 90 per cent of this disease as recognized has for many years now been sent to these hospitals, its prevalence has not materially decreased. The mortality, however, has been greatly lessened, until now, for several years, the mortality from this disease in the hospital is slightly less than 2 per cent. There is little doubt that this has been brought about by a process of natural selection. To the hospitals have been sent the worst cases, leaving the milder cases as the propagators of the disease.

A good hospital for infectious diseases is much appreciated by physician and family. For the doctor it solves many difficult problems in the home, when he is called to a contagious case; it also helps in obviating the danger to the members of the family, interruption of the work of the breadwinner, and the breaking up of the school attendance of the other children.

The hospitals of this country, like those in England and elsewhere, have been built primarily for diphtheria and scarlet fever. In recent years a few have admitted measles and whooping cough. Without here discussing the feasibility of caring for multiple diseases in the same or neighboring buildings, it will be admitted by all that there are many other diseases, like cerebrospinal meningitis, chicken pox, smallpox, erysipelas, and other recognized infectious diseases which should be logically sent to an infectious disease hospital. Formerly a person who contracted diphtheria or smallpox was in disgrace. Any place at all was good enough for him to be sent to. The public little cared how the patient fared, or whether he recovered or not. The medical discoveries of recent years have helped to change the minds of at least the leaders of public affairs. In no group of human diseases can scientific treatment and nursing save so many lives. In acute diseases the issue is soon reached and the patient either dies or recovers completely to become again a useful member of society.

There can be little doubt that no city can afford to be without an up-to-date, properly equipped, and well-conducted hospital for infectious diseases. Hospitalization should, however, be well done or not done at all.

Before discussing hospital construction and management, it might be well to review a few facts relative to transmission of infectious diseases.

While studying medicine I was told the distinction between an infectious and a contagious disease. I never understood that distinction and I don't now. An infectious disease is any disease caused by some micro-organism. All these diseases are transmissible directly or indirectly, usually from man to man, for most diseases are peculiar to human beings. In some cases animals or insects suffer from the same disease or act as intermediary hosts. So that the terms "infectious" and "transmissible" or "communicable" are much superior to the old term "contagious." It must be borne in mind that some diseases are much more highly transmissible than others, and the modes of infection vary greatly. It becomes necessary to study every disease by itself and group those in which the methods of transmission are similar.

It is important to know the etiology of each disease. It enables the clinician to make an accurate diagnosis and make it possible to determine whether the patient is free from infection at the

* This paper is the first of a series on the care of infectious diseases in hospitals. The next article will be a historical survey of aseptic nursing, and will include accounts of experience in French, English, and American Hospitals.

time of release from quarantine. It so happens that the causative organism is not known for many such common diseases as scarlet fever and measles. In either case, the physician ought to know by what avenue or avenues the virus escapes from the body, how early in the disease the patient is infectious, how long a time he continues to be infectious, and what diseases develop the carrier state. I realize that these facts are not known for all diseases, but even in the doubtful ones we have much data to guide us.

The next important fact to know is what becomes of the virus after leaving the human body. Bacteria, on leaving the human body, seldom multiply and usually die or become avirulent rather promptly, particularly under conditions of dryness and sunlight. This is exclusive of spore-bearing organisms, such as tetanus and anthrax bacilli. They do live sometimes in milk and water, ice cream, and a few other foodstuffs.

Stories told, in all good faith, of scarlet fever contracted from the clothing worn by a child, dead many years before, are not true. Were this a fact, how could any of us ever escape all the infectious diseases to which man is subject? This old notion has been the premise upon which much of our sanitary work has been built. Money has been spent chiefly on examining the plumbing, a damp cellar, a dirty back yard, or attempting to "sterilize" by fumigation, the rooms occupied by the patient, while the real source, a carrier or missed case, has been allowed to go at large and continue to do damage.

We must take the new point of view if we expect to make much headway in combating infectious diseases. It must be realized that the presence of a scarlet fever patient in the room does not mean that the atmosphere, the walls, and the contents of the room are infected generally; usually it is the gauze or cloth used to wipe the nose or mouth, the pillow slip, the feeder and dishes, the throat stick, nurses' and doctors' hands, and other things which are really soiled by the secretions of the nose and throat. It is the aim of modern workers to destroy promptly or to sterilize the moist secretions, for it is these which do the harm. So, too, in following any outbreak in a hospital or the community, one should direct attention to other members of the household, or those in immediate association with the patient, obtaining exact facts instead of at once beating about, aimlessly sterilizing, destroying, and fumigating.

It can not be too strongly emphasized that acute infectious diseases do not arise from our physical environment, but rather from our personal environment and common points of contact. It is not things but human beings which are the real source of contagion. If there is an outbreak of typhoid fever, it is well known that the milk and water route is most likely the source. It is then essential to trace out the individual or individuals which have infected these sources. A successful search for any source resolves itself into a piece of detective work of the finest character. This requires a wide knowledge of the typical and atypical forms of acute disease, together with their bacteriology.

The three sources of infectious diseases in any community or institution are (1) the recognized clinical case, (2) the atypical or missed case, and (3) the carrier. How large a part each of these three factors relatively plays is not easy to say. It varies with the different diseases. It can, however, be truly said of many diseases that the missed cases are as numerous as the clinical cases. We do not know how many sore throats without membrane or unattended with rashes, are either diphtheria or scarlet fever, respectively.

So, too, many diseases develop the carrier state, and the patients continue for weeks or months or even years as constant or intermittent carriers. It is this fact, namely, that it is not easy or possible to locate every missed case or carrier, that has hindered the stamping out of many common infectious diseases.

The importance of atmospheric transmission of acute infectious diseases is a much-discussed question. When Koch, Pasteur, and others showed by their experiments that many acute diseases were caused by bacteria, there developed a new conception of prophylaxis and treatment. Bacteria were found in wound discharges or on objects generally, and even in the air. Surgeons saw at once a possible explanation of their septic wounds and why it was so dangerous to open the abdomen. They began to sterilize their instruments, hands, field of operation, and everything which came in contact with the wound. They also, in the beginning, sterilized the wound and air about the operative field. The inconvenience of the carbolic spray and its irritating effect upon the wound led to its gradual abandonment without increase in sepsis, and asepsis became an historic accomplishment.

Before this era, in Europe, infectious diseases were more or less admitted to general hospitals. When their transmissibility became evident in the light of bacteriological studies, they were isolated. Two methods of transmission were recognized, namely, contact direct or indirect, and atmospheric. The possibility of air infection was magnified in the minds of medical men, and, even up to the present day, too much importance has been

ascribed to it. It seems strange that when the surgeons gave up the air spray that air infection should have continued to claim so much attention.

We can not deny that when particles of saliva are coughed into the face of the physician or nurse, there is danger of infection. At what distance there is no danger from a patient's cough, is hard to say, but it can not be far, perhaps three or four feet. It has been repeatedly shown that as petri dishes are placed at increasing distances from the mouth during cough that the number of colonies developing diminishes very rapidly. Now one of the determining factors of infection outside of immunity, virulence, and aggressivity, is the number of organisms ingested. It has been found in inoculation experiments upon tuberculosis that it requires at least twelve organisms, sometimes many more, to infect a guinea pig. It becomes a question whether there are enough organisms in the air at a given distance from the patient to infect.

Even though disease-producing organisms are found in the atmosphere of any ward or room, it is no proof whatsoever that this is a method of infection. To substantiate any such claim, it would be necessary to infect by inoculation with such contaminated air, excluding other sources of contagion.

On the other hand, there is much convincing practical evidence from infectious disease hospitals in France, England, and the United States that, while air infection may take place, it is not the usual mode of infection and is probably rare. This evidence will be discussed in the next paper.

THE MUNICIPAL CONTAGIOUS DISEASE HOSPITAL OF THE CITY OF CHICAGO*

A Thorough Surgical Technique Used in the Isolation of Communicable Diseases—Standing Orders Stringently Enforced—Freedom From Cross-Infections Proof of Effectiveness

By MARGARET J. ROBINSON, R.N., Field Editor of The Modern Hospital, Chicago

IT would seem to the average hospital observer that a complete surgical technique is the absolute defense in all isolation of communicable diseases, that an aseptic conscience should be the first requirement made by the isolation hospital of each doctor, nurse, and employee who lives in it, and as the law of the Medes and Persians should be their daily routine. With this defense and technique complete and made "fool-proof," we may have sight and sound and intimate knowledge of those near and dear to us even when some vicious infection has made them incommunicado with the rest of the world.

The Municipal Contagious Disease Hospital of the City of Chicago is using an isolation technique which has proved its thoroughness by the comparatively small number of cross-infections and by the freedom of its nurses and employees from first infectious contracted while on duty.

The routine of standing orders is carried out religiously; each nurse or employee entering the institution is carefully instructed and given the typed rules to have and to read, and each one then knows that the first wilful error in technique means a warning, and that the second means dismissal without further notice.

The rules for the admission of patients are clearly stated in the following, as are also the rules and instructions for the maids who do the housecleaning of both clean and infected areas:

ADMISSION OF PATIENTS

"The ambulance attendant places the admission slips upon the desk in the corridor, then places the patient upon the cart, over which a sheet is thrown which covers the top and handles. If more than one patient is brought at the same time, the other or others are placed upon the bed. The nurse first telephones to the office for the locker numbers for patient's clothes. She then enters the date, hour of admittance, name of patient, name of receiving physician, number of case, and her own name in the receiving register; stamps the case number, date, number of receiving physician on both the original and duplicate admission slips, and writes the locker number on the original slip.

"The nurse then places upon the bedside table a culture box marked with patient's name and date, slide with patient's name (if patient is a girl under fifteen years of age, two slides are prepared), tongue-depressor and throat swabs. A muslin square is placed upon the floor. The nurse then puts on a clean gown, covers the patient with a second sheet, removes the patient's clothing, placing it on the muslin square, and takes temperature, pulse, and respiration. The thermometer is washed with soap and water before returning to jar.

"Vaginal smears are obtained from all girls under fifteen years of age, and note is made of any vaginal discharge. She then washes her hands, removes gown, folding it clean side out, washes hands again, records temperature, pulse, and respiration on reverse side of both admission slips, lists patient's clothes in duplicate, making note of valuables by writing "none" or "yes," and locker number; the original is placed on the hook in the corridor and the duplicate is placed in the bundle. The

*This article was written by Miss Robinson for The Modern Hospital before she took up her duties with the American Red Cross last September. The next issue of The Modern Hospital will contain a paper by Miss Robinson based on her experiences abroad, where she is still in service.

muslin square is tied securely, and a tag bearing patient's name and locker number is placed on bundle, which may be left on floor until collected. Money, jewelry, and all other articles of value that are assigned to the vault shall be recorded in the following manner: Place the clasp envelope in the record book underneath the thin sheet, insert *one* carbon paper between the envelope and the thin sheet, write everything called for on record sheet, and sign your name where it says "Received by." Do not fail to have patient sign also. Tear off the two copies and take the valuables and the sheets to the head nurse on the first floor, who will sign for same on the original copy of the blanks. The sheets are numbered consecutively, and all must be accounted for. If a sheet is spoiled it should not be destroyed but should be marked 'Void' and sent with the others. The patient is then reported to the office as ready for the admitting physician.

"After the receiving-room examination is completed, the diagnosis, condition, complications, and physician's signature are written on the reverse side of both admission slips; the original is placed on hook in corridor.

"After the diagnosis is made, the floor is notified so that a bed may be prepared. The nurse again puts on the gown, gives a tub or sponge bath, examines head for pediculi, tincture of larkspur being applied if necessary. The nurse then washes her hands, removes gown, folding it wrong side out, again washes her hands, places the chart and duplicate admission slip under the pillow of the cart, which is uninfected, and then, without touching the patient or allowing him to touch anything en route, the patient is wheeled by the nurse to the floor, being removed from the cart by the floor nurse, the sheets remaining with the patient. The nurse then returns the cart, which is uninfected, to the receiving room. She receives from floor sheets to replace those left with patient.

"On returning to the receiving room with the cart, which is left in the corridor until the room is cleaned, the nurse again puts on her gown, places in the laundry bag any linen which is infected, including the covers on the tables, if they have been accidentally infected, the sheets covering the bed if the latter was used, etc. The bathtub or basin stand, soap dish, comb and brush, bed, chairs and cart top, if infected, are cleansed with soap and water or lysol solution. The stethoscope, tincture larkspur bottle, and any other infected articles are immersed in lysol solution. The nurse then removes her gown, placing it in the soiled linen can, washes her hands, returns the cart to the room, covering it and the bed with a clean sheet, and leaves the room ready to receive the next patient.

"The receiving room is an uninfected area, and infection must be confined to the cart sheets, bed, bath basin or tub, and muslin square containing patient's clothes. After handling the patient or his belongings, nothing in the room should be touched without first washing the hands. Clean gowns for both physician and nurse are used each time patients are received. Do not use the hanging portion of the cart sheet to cover the patient, but use a second sheet. Remember that the original admission slips and clothes lists are sent to the office without being fumigated and should not be infected, also that the elevator buttons and doors should be free from infection. The same desk, telephone and supply locker are used for both scarlet fever and diphtheria patients and should be touched only with clean hands.

"The conscientious observance of technique is necessary not only to prevent the spread of infection from patient to patient, but to insure employees against contracting infection from patients."

RULES FOR CORRIDOR MAIDS

"Sweep N. C. cubicles, dressing room, nurses' corridor, rear corridor, rear bath room, store room and Ward B, each day.

"Scrub two or more cubicles and rear rooms with tile floors each day, alternating, so that all are scrubbed once a week.

"Mop nurses' corridor each day, scrub every other day.

"Change water for each cubicle.

"Clean cubicle glass and frame.

"Clean glass shelves every day.

"Clean radiators with brush.

"*Keep corners clean.*

"Clean hoppers each day.

"Move beds by taking hold under the spring.

"Do *not* wait on patients or handle anything belonging to patients.

"Take but a small space at a time when mopping or scrubbing and dry thoroughly.

"Dust to be taken up in cubicle and not swept into corridor.

"Do not put cans, etc., on hopper or shelves. When cleaning keep everything on the floor.

"Mop and cleaning rag to be cleaned and rinsed thoroughly each night, and left ready for use next morning.

"Supplies are to be gotten at 7 a. m.

"Do not leave the floor for any reason without permission from the head nurse.

"Change house dress for hospital dress in rear room when reporting for work. Keep hair covered. When going to meals or from work scrub hands and face and change hospital dress for house dress.

"Refuse to be put into large garbage can in rear corridor.

"When ill or off duty for any reason, report to head nurse.

"*Report for work at head nurse's desk each morning at 7 a. m. and at 4 p. m. when leaving.*

"Maids leaving floors before hours or coming late are subject to dismissal."

The nurses employed are graduates and the positions are civil service; the corridor maids are largely colored help and are paid enough to guarantee against frequent changes in that part of the service. That soap and water supported by sufficient elbow and hand mechanism are the very best and surest disinfectants possible has been proved by the best methods of isolation technique. Lysol—and that only in small amount daily—is used in this hospital and then only in cross-infection or where separate or unusual isolation is needed in a room which does not have its own hopper and running hot and cold water.

At the Chicago Municipal Contagious Disease Hospital, the dead lines between the clean and infected areas are clearly marked, and their defense becomes mechanical and a habit to the doctors and nurses and to the employees of even fair intelligence. Corridors, dressing rooms, service rooms, and kitchens are regarded as clean areas.

The superintendent of nurses feels that each contagious hospital must not only follow the general technique now considered to be standard for

isolation, and believed from experience and laboratory findings to be up to date, but that each new hospital of this kind must work out its own special salvation according to its construction and working conditions, and many of the methods used in the hospital are the result of the work and experiments of the medical superintendent and of the resident physicians.

Probably, to the average lay mind, the most important factor in the protection of the public against the great amount of infection which they know must exist in a hospital for contagion is the connecting link between the infected patient and the outside world, that is, the doctor, nurse, or employee who goes into the hospital and comes out of it again. At this hospital, this is thoroughly provided against, and the rules for the prevention of carriers are rigidly enforced.

The isolation of the detention cubicles is thorough, the method of handling clean food, infected dishes, and garbage is carefully worked out, and the handling of the laundry problems—with its distinctly clean areas protected from contact by walls, separate equipment, and employees—has proved successful in the end-result of the hospital records.

CONVERTING A DEPARTMENT STORE INTO A HOSPITAL

Novel Problems Presented to Army Architects in Turning the Greenhut Building into United States Debarkation Hospital No. 3—How the Question of Light and Air was Met—Extensive Laboratory Work and Weekly Newspaper

By Our New York Correspondent

WHEN it was announced that the Greenhut Buildings, reaching from Eighteenth to Nineteenth Street on Sixth Avenue, New York, had been taken over by the Government for conversion into a hospital, there was an almost universal exclamation, "It will be so noisy!" But it is not. Sitting in the wards facing west, one sees the cars on the elevated tracks passing before he is aware of the existence of an elevated railway in the neighborhood.

Fig. 1. The Greenhut Building, New York City, a department store which has been converted into a hospital for Uncle Sam's wounded.

This question, of course, was only one of the problems involved in converting a building intended for use as a department store into a military hospital. As taken over by the army, the building was merely a hull with floor and twenty-six elevators in it. That is one good point. Probably no other hospital in the world is quite so rich in elevators, and most of them are good big ones with a capacity of thirty standing or of four litters at one time.

The power plant was also complete. This included eight direct-acting and two straight-line dynamos, with ten boilers generating 1,500 horsepower. If all the boilers were operated at full capacity, which they are not, they would consume 350 tons of coal a week—which they do not—though every foot of the vast building is kept as warm as toast.

The street floor of the Cluett Building, which adjoins the Greenhut Building to the east, reaching through from Eighteenth to Nineteenth Street, is used as a cafeteria for men in uniform and is operated by the Y. M. C. A. One corner of the ground floor is reserved for the office of the architect, Major Charles W. Noble, Q. M. C., who assisted Major S. F. Voorhees, S. C., a New York architect, Captain W. E. Lang, M. C., and Lieu-

tenant Russell H. Kettell, S. C., in drawing up the plans for this hospital and for Debarkation Hospital No. 5, which occupies the Grand Central Palace, and which presents very similar problems; he has also superintended the execution of the plans.

The remainder of the eleven stories of the Cluett Building is used as barracks for the medical detachment attached to No. 3, which varies from four hundred to eleven hundred men, and for the escort detachment of from four hundred to eight hundred men and officers. The medical detachment furnishes the orderlies for the hospital, while the escort detachment provides escorts for patients who are sent away to other hospitals.

The Greenhut Building was not erected in accordance with the requirements of modern hospital construction. The entire plot, measuring 184 feet on Sixth Avenue, 510 feet on Eighteenth Street, and 460 feet on Nineteenth Street, was built over with solid floors and without any of the courts which would have been provided in a hospital building. This means that from a theoretical point of view the central portion of the building lacks ventilation, but, by the liberal use of air ducts and exhaust fans and by the use of large instead of small wards, this disadvantage has been to a large extent overcome. This drawback was particularly regretted on account of the need for concentrating the plumbing in the center of the building, as it was feared that the toilets located there might prove offensive. Happily this fear has been dispelled, for there is no odor to betray their presence.

At the eastern end of the Greenhut Building is a driveway into which freight of all kinds can be brought and which provides room for keeping twelve automobile trucks. Patients enter at the Eighteenth Street entrance on the south side of the building and pass at once into a reception room on the right. Here each patient is issued a clinical record slip, made out in triplicate on a typewriter. If he is a litter patient he is taken to the ward at once. Otherwise he strips and is examined thoroughly for contagious diseases and for vermin; a throat culture is taken and he is assigned a ward. His clothes are taken from him and disinfected by steam, all leather goods being disinfected by formaldehyde. The patient himself is scrubbed with soap and a flesh brush, under a hot shower, the temperature of which is regulated by a thermometer. He is dried by two attendants, receiving pajamas, slippers, and bath robe, and is conducted to the ward to which he has been assigned. Patients afflicted with vermin are shaved, scrubbed, and anointed with oil to kill any vermin which may not have been removed by other procedures.

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Fig. 2. The mess sergeant realizes that his work does not end with the dispensing of food. He wanders about the tables assisting the badly wounded who are unable to help themselves.

The western half of the main floor is devoted to the reception rooms for visitors and to the Y. M. C. A. theatre, which has a regular stage, a boxing ring, and seats in tiers for an audience of eight hundred patients. Here the patients are entertained by professional actors and musicians, whole companies of whom volunteer for this service. On the Sixth Avenue side visitors are admitted during certain hours. A large force of Y. M. C. A. workers receives these visitors, locates the patient by means of alphabetical directories, and brings him down to the reception room, or, if he is unable to walk, takes the visitor to his bedside. This, it can be seen, is a tremendous task, as the average number of visitors received in one day ranges from sixteen hundred to two thousand.

This floor also provides room for the publication office of *Come-Back*, a very ambitious weekly newspaper, published in the interest of the patients. The circulation of this paper has run as high as forty thousand on one issue. The plan of the main floor is shown on page 250.

The executive offices are located on the mezzanine gallery on the north side of the building, and

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Fig. 3. The wounded men are entertained by their companion in the sun parlor.

here the commanding officer, Major W. J. Monaghan, M. C., who before the war was engaged in private practice in Girardville, Pa., can be found with his finger on the pulse of the institution. The western half of the second floor is devoted to wards, while the eastern half is occupied by the mess hall and kitchen; the latter is one of the largest and most complete to be found in the city of New York.

The kitchen occupies the eastern side of the building, covering an area of 48 by 85 feet. It is provided with six 60-gallon steam-jacketed soup kettles, six 60-gallon coffee urns, all of aluminum, 140 running feet of heavy duty gas ranges, eight steam cookers which carry 350 pounds pressure, and four low-pressure steam cookers. One of the most modern electrically driven kitchen machines has been installed, with attachments for mixing dough, grinding meat, whipping cream, etc. The kitchen is also provided with a mechanical potato-peeler which has a capacity of twelve barrels an hour and which is so economical in its work that, if worked at full capacity, it will save enough potatoes to pay its cost of $640 in six weeks.

One corner of the kitchen is set apart as a diet kitchen, where the dietitian prepares any special diet that may be ordered for special patients. Fortunately, the large majority of the patients who are received at this hospital are far on the road to recovery and can eat and digest the regular fare.

The meals are served on the cafeteria system. A large serving table, fitted out with steam bath, is provided, with rectangular covered metal containers 22 inches long, 14 inches wide, and 18 inches deep. From these the men are served. This steam table and serving counter is at the western side of the kitchen and on the eastern side of the dining room. This room, which seats two thousand patients, is entered from the center of the building by doors leading into an 8-foot passage railed off from the rest of the room. This railed passage leads to the serving counter, where the diners divide, one lot going north and one south. As they pass down this counter, each soldier picks up a tin tray, an agate mug and plate, knife, fork, and spoon. He passes along the counter, receiving bread and butter, food, and coffee, and finds a seat for himself at the plain deal ta-

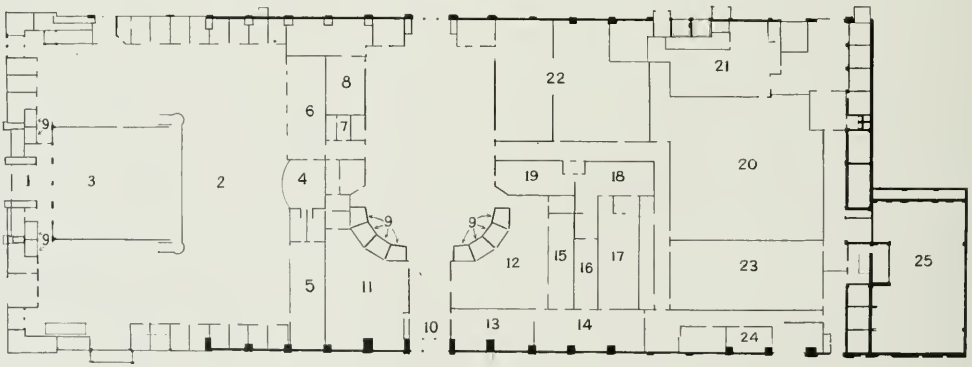

Fig. 1. Plan of the main floor of Debarkation Hospital No. 3.

1. Entrance.
2. Red Cross reception room for visitors.
3. Red Cross bureau of information.
4. Stage.
5. American Library Association.
6. Billiards.
7. Chaplain's office.
8. Officers' locker room.
9. Elevators.
10. Main entrance.
11. Nurses' locker room.
12. Receiving.
13. Office.
14. Examination.
15. Undressing.
16. Delousing.
17. Clothing.
18. Showers.
19. Dressing.
20. Patients' effects.
21. Guard room.
22. Waiting room.
23. Hospital corps.
24. Postoffice.
25. Garage.

bles. The tops of these tables are removable and each of the three planks constituting the top is washed on all four faces every day. At the conclusion of the meal the soldiers deposit their dishes in one of the two wash rooms which are located in the center of the room. Here the dishes of course. The patient had never at any time had any pain, not even a headache, though he lost the sight—but not the eye—and the hearing on one side. The wound was received in the Argonne forest, and the patient was unconscious for thirty-six hours afterwards.

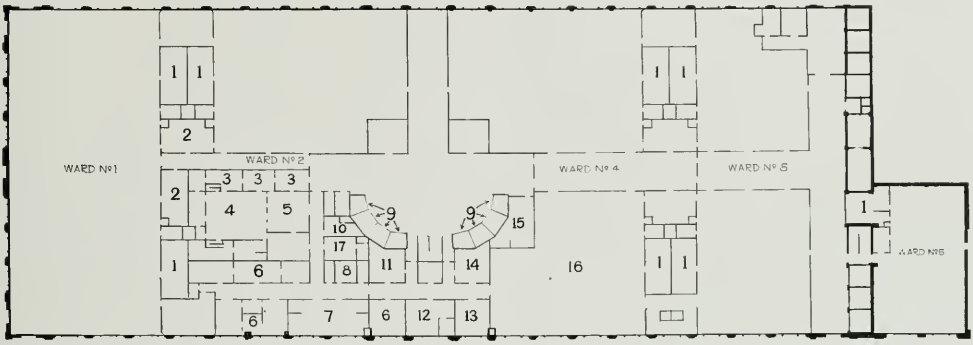

Fig. 5. Plan of third floor, which is typical of remaining ward floors.

1. Toilet.
2. Serving.
3. Fluoroscopic.
4. Radiographic.
5. Waiting.
6. Surgical-dressing-operating.
7. Recovery ward.
8. Diet kitchen.
9. Elevator.
10. Nurses' room.
11. Waiting.
12. Dentists.
13. Ear-Nose-Throat.
14. Eye clinic.
15. Dispensary.
16. Acute surgical ward.
17. Officers' room.

are washed and dried by machinery. Patients who are unable to wait on themselves are seated at special tables where their meals are served to them. For bedridden patients a special carrier has been devised into which four of the covered food-containers which are used at the serving counter fit. These are set in a kind of a fireless cooker, which can be kept hot if desired by placing heated irons or soap stones in it. In practice this is found to be unnecessary, the heat of the food being sufficient. These carriers are mounted on small wheels and are wheeled through the wards to the bedside of the patient. From a practical point of view they have been found superior to the forms of food-carriers in general use in hospitals on account of the simplicity of their construction.

The southern or Eighteenth Street side of the third floor contains the operating room, the dental room with two chairs, and a very complete and well-equipped x-ray room, where an extremely interesting collection of x-rays has been made and forwarded to Washington for permanent preservation. One of these showed a piece of shrapnel in a patient's heart, which he still carried there when he left the hospital. Another x-ray showed where a bullet $1\frac{1}{4}$ inches long had entered the skull to the right of the orbit of the right eye, crashed its way through, broadside on, and brought up against the right mastoid. This was removed through the mastoid, under anesthesia,

The remaining floors are devoted to wards and conform in general layout to the floor plan shown on another page. The architect had at first proposed to lay them out in wards containing twenty-five beds, the standard size ward, but this was changed on the ground that the institution was merely an evacuation hospital, not one for treatment, except incidentally, and that the patients who came were, for the most part, well on the way to recovery and required little if any treatment.

As will be seen by consulting the diagram, all

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Fig. 6. The theater in which the boys find much pleasure. Their nonchalance of attitude indicates that they feel at home.

the service is concentrated in the center. Here there are a linen room, a nurses' room, bath and toilet rooms, and a service room with a pantry for each ward. By concentrating all these service rooms in the center, it became possible to give the patients the benefit of the light on all three sides of the building. Practically the entire three sides of the building consists of glass—there are 58,198 square feet of glass windows—so that, notwithstanding the lack of any central court, the floors are all well lighted. This arrangement also makes it possible to get the best results from the artificial system of ventilation, which consists of air ducts through which the air is drawn off by powerful electrically driven fans.

On each of the three floors there is one ward on the eastern side completely walled off, which provides fifty beds for the isolation of contagious diseases. So far there has, fortunately, been but little need for these isolation wards.

The dispensary is a room measuring about 20 by 30 feet, located in the center of the fourth floor, and gives employment to three pharmacists and three orderlies. All medicines are ordered on regular prescription blanks, which are brought to the dispensary and are called for by the ward orderlies.

The clinical work of the hospital is done in the laboratory of the port of embarkation, located in pent houses on the roof of the building under command of Major E. H. Schorer, M. C. Not only does the laboratory do all the work for this particular hospital, but it acts as a department laboratory for all the laboratories, some eight in number, under Colonel Kennedy's jurisdiction. This means that Major Schorer keeps a reserve of laboratory supplies, which can be drawn on by other laboratories in an emergency, and it means also that he handles the overflow when any of the other laboratories happen to be unduly taxed.

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Fig. 7. Entertainment and occupation for the wounded doughboy.

Probably for the first time in any military hospital the examination of a throat culture for diphtheria is made of every incoming patient. Routine examination of feces is also proposed and many thousands of such examinations have been made, while a large room in one corner of the laboratory is given over to an extensive research into the nature and occurrence of intestinal parasites.

Wassermann tests are made where the necessity is indicated and pathological specimens are examined; the mounted slides are eventually forwarded to the Army Medical Museum at Washington for preservation as part of the clinical history of the patient.

An animal house on one corner of the roof affords room for quite a colony of rabbits, guinea pigs, and mice for laboratory use.

The staff of the laboratory varies from time to time, but usually embraces four officers, seven women technicians, four clerks, and twelve noncommissioned officers and enlisted men.

The hospital boasts a post exchange, located in the basement, where a rushing business is done in tobacco products, ice cream, crackers, candy, and soft drinks. A barber shop with five barbers in attendance and a tailor shop with two pressing machines forms part of the post exchange.

The basement also houses the sterilizing plants, both steam and formaldehyde, and the linen room, the latter a huge institution. Each ward is furnished and charged with two complete changes of linen for every bed. That not in use is kept in the ward linen room on the same floor as the ward.

The main linen room exchanges fresh linen for soiled at any time without any requisition or papers, but the issue of additional linen is only made on formal requisition.

The office of the chief nurse, Miss Leary, is on the third floor. She has from one hundred to three hundred nurses under her direction, according to the number of patients in the hospital, which varies daily. The nurses are housed and given two meals a day at the Trowmart Inn on Abingdon Square, which has been taken over for

this purpose by the army. One meal a day is furnished them at the hospital.

One very attractive feature of the building is a glass covered conservatory on the roof, with more than four thousand square feet of floor space, which is used as a recreation room and sun parlor. Both patients and attendants are given free access to this commodious room, which is provided with a player piano, a phonograph, a collection of reading matter for the entertainment of the patients, comfortable chairs and couches, statuary, and a little grove of potted plants.

The problems met in converting the Grand Central Palace at Forty-seventh Street and Lexington Avenue into Debarkation Hospital No. 5 were much the same as those met in the Greenhut Building. The former building has the advantage of standing entirely alone and of covering a somewhat smaller area, thus giving better light and ventilation. This hospital, which received the first patients on Christmas day, has a capacity of 3,400 beds.

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Fig. 8. One of the spacious wards in this department store hospital.

LIVING-OUT VERSUS LIVING-IN FOR THE HOSPITAL EMPLOYEE

The Convenience of Either Plan Depends Upon the Class of Employees and Local Conditions—Economy and Personal Desirability the Main Factors to Consider

By L. R. CURTIS, Vice-President of St. Luke's Hospital, Chicago

WE may without doubt start with the understanding that it is necessary for all nurses, all training school officers, and at least a considerable portion of the physicians performing intern service to live in.

The wisdom of having the various other classes of employees live in depends in a measure on whether or not the institution has available space and a proper recognition of the degree of comfort which the employee may reasonably expect. Years ago—and even now the same thing may possibly be true in some institutions—the accommodations offered were so poor as to make it almost impossible to secure and retain even passably efficient employees. In a sense, the room which the employee occupies is his or her home, and in this day something more than enough floor space for a bed in a room occupied by several others is necessary. I might add that old and decrepit furniture which has passed all usefulness elsewhere does not improve the appearance or the comfort of the employees' quarters. The food question, always a troublesome problem where many employees are fed, also deserves consideration. While the coarser portions of meats and other foods will properly find their way to the employees' table, in nearly every institution a vast improvement may be effected by better planning of meals and more care in the preparation and service of the food. A small expenditure to secure a little more variety will also help. Furthermore, the employees' dining room is too often a most forlorn-looking place.

Another thing which must be considered is the fact that in order to make conditions acceptable to those living in, it is necessary to segregate them into three groups, both as to rooms and as to food service. It is also necessary to have some supervision of employees off duty while they are on the premises.

Assuming that the institution has the facilities and the inclination to provide a reasonably comfortable living for its employees, the question, "Does it pay?" next presents itself.

As a premise in any discussion we may accept as a fact the understanding that few, if any, of your employees will value what is received in the way of maintenance at anything like its cost to the institution. If you will carefully charge your employees' maintenance account with all which is

properly chargeable to it, you will probably be surprised. It is likely, however, that it always pays to furnish food for enough employees to consume the less desirable portions of food which you can hardly help purchasing and yet find difficult to use profitably in any other way.

Once the matter of maintenance has been settled, the problem resolves itself into the question of which employees should live in and which should not. I will endeavor to classify them and name some of the more obvious points pro and con the question of living in.

Office Employees—While it may pay to furnish lunches to them, or even all three meals, it does not pay to have them live in. The objections are that it does not reduce your cash payroll; it practically limits you to unmarried people in your office, and these people have a decided objection to the restrictions of life in a hospital.

Heads of Departments—As a matter of convenience, it is usually desirable to have all female heads live in. The men, however, as a rule are married and wish to live at home.

Ward Maids, Waitresses, and Kitchen Employees—It is almost essential that all of these should live in. It is usual for this class in institutions, hotels, clubs, and families, to receive maintenance, and they expect it. Their more or less irregular hours of duty do not permit living outside without great inconvenience. Even though it should not be agreed that meals shall be furnished, the institution would find that it was furnishing practically all the food of those employees who come into contact with cooked food supplies.

Laundry Employees—I doubt whether in a hospital located in a large city it is every profitable to furnish either room or board to this class of employee. The public laundries furnish neither, and they set a scale of wages which must be met in order to have efficient help. For these workers to live in would result in no decrease in cash payments commensurate with the cost of their maintenance.

Engineers, Firemen and Repair Men—It is rarely advisable to have these men live in. The better men are usually members of unions, and unions are opposed to any other than cash wages. Married men are usually more steady and reliable than single men, and the married man does not want to live in.

Porters, Janitors, Window-Washers, and All Rough Labor—This class presents the greatest problem. They are unquestionably under better control if they live in. On the other hand, unless their quarters are isolated, they are especially undesirable to have about when they are off duty.

The foregoing views are based on the conditions of the last few years in the larger cities. An unusual location might change the whole aspect of certain phases of the subject.

We should recognize the change which has taken place in the mental attitude of working people in the recent past. There is a greater feeling of independence, and there is no doubt that the rank and file are much better satisfied when they have definite working hours, payment in cash, and a complete disassociation of work and living conditions. We may perhaps argue that we can afford to furnish and do furnish better food and habitation than they can afford to provide for themselves, but the sentiment is strong that they want to live where they please and as they please, free from the employer's restrictions.

THE CALL OF THE NORTH

A Work of Humanity Among the Deep-Sea Fishers—Nobility of a Service That Offers the Heart As Well As the Hand

For eight weeks he had been lying in the frozen regions of the north, this young skipper of the salmon schooner, suffering with chronic trouble in his spine and waiting for the help that only a hospital can give. He is now in the little hospital at St. Anthony, and the ice-filled harbors and hillsides of glass make it probable that the little world of his wife and children will be barred from him until next June.

So writes Dr. Wilfred T. Grenfell, of the Grenfell Association of America, 156 Fifth Avenue, New York, in telling of his effort to organize a new hospital center at Pilley's Island. The little mobile unit now stationed at that point is most helpless and inadequate for the continual demands made upon it. Often, as early as 8 a. m., anxious patients in the clinic await "the blessings of the knife," while the stillness of the night is broken by the screech of the special motor boat whistle announcing the arrival of a patient who hopefully seeks relief from the tortures of physical pain. The work of the unit among these people of the far North has grown so rapidly that further progress is now practically dependent upon additional facilities—an x-ray room, a biological laboratory, an assistant resident doctor, and two trained nurses.

But the crying need of the moment is for men. Grenfell needs—and needs urgently—the help of at least two young, strong, able doctors, with the love of God and their fellowmen in their hearts. They must be big men, broad-minded and generous—men whose highest ideal is the pure service of unselfishness, and men who will continue to give willingly in spite of the fact that their earthly reward may not present itself in the form of dollars and dimes. Two returned soldiers, unless hopelessly crippled, could fill the vacancies. Crippled bodies can often do wonders when the soul within is unscarred, and hearts mellowed by the sympathy of suffering can be the inspiration for noble and worthy deeds. If the keen joy of service, for the privilege of which our heroes sacrificed their very all, has proved an end worth while in human life, Pilley's Island offers an opportunity to taste it to the full, with the added attraction of a healthy existence, congenial companionship, and a scope for every talent possessed.

HOSPITAL ACCOUNTING

Loans and Notes Payable Book, Income Ledger, and Balance Sheet Described—Treasurer's Trial Balance and Balance Sheet—Systems of Accounting for Use in Hospitals Which Use Only One Set of Books

By CHARLES A. PORTER and HERBERT K. CARTER of the Staff of The Modern Hospital

[Continued from March issue, p. 181]

LOANS AND NOTES PAYABLE BOOK

The Loans and Notes Payable Book is sometimes called the Bill Book, and it is used merely to keep a record of all loans and notes, showing makers, date when due, rate of interest, etc. These records should be kept on standard forms suitable for this purpose, which may be purchased at any stationer's.

THE INCOME LEDGER

The Income Ledger is a subsidiary of the General Ledger and its relation to it is the same as that of the Bill Book to the Superintendent's General Ledger.

In this book individual accounts are kept with each kind and issue of bonds, stocks, mortgages, and properties owned for investment purposes in order to show a complete accounting of the principal, income, and expense of each class of securities.

As many of these securities are a part of the endowment of a certain specific fund, it will be necessary to keep ledger accounts with each fund separately; by this means the monthly income may always be ascertained for any particular fund.

The income as it accrues is posted to its proper account from the Treasurer's Cash Book if paid, or by Journal entries if unpaid. This procedure is explained in the example under Treasurer's Journal entries.

These accounts are posted to one General Ledger account only from the Cash Book and entered from there to the Treasurer's Balance Sheet in total, or listed for an exhibit, if desired.

INCOME LEDGER

GENERAL ENDOWMENT FUND

Bond Accounts

Name of issue..... Rate of interest.....

Payable at..... Dates.....

Principal due.....

DR. CR.

Date	Item	Folio	Amount	Date	Item	Folio	Amount
.....	No. shares at (price) purchased..	C. B.	$.....	.....	Interest for (time).....	C. B.	$.....
.....	No. shares at (price) purchased..	C. B.	.....	.....	Interest for (time).....	C. B.	.....
.....	*No. shares at (price) sales.....	C. B.	.....	.....	Interest for (time).....	C. B.	.....
.....	Profit on sales.....	C. B.	.....	.....	Interest for (time).....	C. B.	.....

*This entry should be made in red ink.

The difference between the black figures and the market prices equals increase or decrease of value for the month.

Bonds should not be revalued every month. The value should remain constant on the books unless a sale is made.

Journal entry 8 should show how this profit is to be cared for.

Stocks are entered in the same manner as bonds accounts, as shown below.

Stock Accounts

Name of issue..... Rate of interest.....

Payable at..... Dates.....

Principal due.....

DR. CR.

Date	Item	Folio	Amount	Date	Item	Folio	Amount
.....	No. shares at (value) donated...	Jour.	$.....	.....	Dividend No. 32.....	.....	$.....
.....	*No. shares sold (value) as per Cash Book.....	C. B.	.....	.....	Dividend No.....	.....	.....
.....	Profit on sales.....	C. B.	.....	.....	Dividend No.....	.....	.....

*This entry should be made in red ink.

MORTGAGES RECEIVABLE

First mortgage on (property)..... Located at (street).....
(city), (state)..... Owned by (name)..... (address).....
and made (date)..... Principal (amount).....
Rate of interest..... Payable at (give details).....
By (firm)..... Located at.....

DR. CR.

Date	Item	Folio	Amount	Date	Item	Folio	Amount
.....	Bought at par and interest.....	.....	$.....	.....	(Time) interest, at percent.....	.....	$.....
.....	Paid in full.....	.....	.....	.....	(Time) interest, at percent.....	.....	.....
			$.....				$.....

REAL ESTATE ACCOUNT

Description ..... Located at (Street, city, state).....
Rented to..... For period from..... to.....
Rate..... per annum. Remarks.....

DR. CR.

Date	Item	Folio	Amount	Date	Item	Folio	Amount
.....	Donation.....	Jour.	$.....	.....	Rent.....	C. C.	$.....
.....	Sale.....	C. B.	.....	.....	Repairs.....	C. B.	.....
				.....	Taxes.....	C. B.	.....
.....	Loss on sales.....	Jour.	.....	.....	Insurance.....	C. B.	.....

Expenditures are shown in red and are debited to income instead of to corporation expense.

GENERAL ENDOWMENT FUND—(*See General Ledger Account*)

Investments assigned to this fund are as listed below:

DR. CR.

Date	Item	Folio	Amount	Date	Item	Folio	Amount
.....	Mortgages received.....	I. C.	$.....	.....	Interest.....	C. B.	$.....
.....	Bonds received.....	I. C.	.....	.....	Interest.....	C. B.	.....
.....	Stocks received.....	I. C.	.....	.....	Dividends.....	C. B.	.....
.....	Stocks sold *.....	I. C.	.....	.....	Dividends.....	C. B.	.....

*These sales appear in red. The difference between the red and black figures equal the amount of securities held in this fund. The income from this fund is posted direct to this account from the Treasurer's Cash Book, and should agree with income posted from Cash Book to the Treasurer's account with this fund.

THE BALANCE SHEET

Schedules should be made out in support of the main items appearing on the Balance Sheet, such as notes and accounts receivable, inventory, real estate, investments, bonded indebtedness, and insurance. These should be presented by the Auditor to the Board of Managers, but need not be printed in the annual report.

TREASURER'S TRIAL BALANCE AND BALANCE SHEET

The Treasurer's Trial Balance is taken off at the end of each month, and is a transcript of the

footings of each of the accounts in his General Ledger that are not closed into the surplus and deficit account, and from this the Balance Sheet is made. The surplus and deficit account forms a part of the Balance Sheet. A fault which is commonly found is that of calling the Balance Sheet a Trial Balance.

HOSPITALS USING ONE SET OF BOOKS

There have been described in detail the average books and accounts necessary for a hospital having one set of books for the Superintendent and another for the Treasurer.

Many institutions will need to keep but one set of books, thereby eliminating much work in handling their accounts. One Journal, one Cash Book, and one General Ledger need be kept in this case. It eliminates the Superintendent's account with the Treasurer, as the items appearing therein are posted direct to surplus and deficit or other accounts, as indicated by the Journal entries below. The Journal entries would then be:

1

Surplus and deficit account ..... Dr. $.....
Accounts receivable ..... Cr. $.....
For uncollectable accounts receivable charged off during the month.

2

Overpayments by patients ..... Dr. $.....
Hospital earnings ..... Cr. $.....
For accumulated unclaimed overpayments by patients transferred to hospital earnings.

3

Material ..... Dr. $.....
Surplus and deficit ..... Cr. $.....
For surplus amount of material found by inventory above that shown by the material account.

4

Surplus and deficit ..... Dr. $.....
Material ..... Cr. $.....
Loss or depreciation of material as shown by inventory not to be on hand as per material account.

5

Hospital earnings ..... Dr. $.....
Unclaimed wages ..... Cr. $.....
For accumulated unclaimed wages transferred to hospital earnings.

6

Surplus and deficit account ..... Dr. $.....
Hospital earnings ..... Cr. $.....
This account should be balanced monthly by transferring hospital earnings to surplus and deficit account.

7

Surplus and deficit account ..... Dr. $.....
Accounts payable ..... Cr. $.....

Grand total of current expenses for month as shown by Charge Register ..... $.....

8

Grand total current revenue for month consisting of:
Hospital earnings ..... Dr. $
Donations, unrestricted ..... Dr. $
Legacies ..... Dr. $
Income from investments held in Endowed Bed Fund ..... Dr. $
General Endowment Fund ..... Dr. $
Special funds (enumerate) ..... Dr. $
The income of which is to be used to meet current expense.
Income from unrestricted investments ..... Dr. $
Appropriations from special funds to meet current expense ..... Dr. $
And any other accounts composing grand total current revenue for the month ..... Dr. $
Surplus and deficit account ..... Cr. $

Other entries noted under the Treasurer's Journal and numbered 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 18 will be made as per those examples.

The Cash Book will consist of the General Cash Books, Patients' Cash and Receipt Books, and Combination Cash and Check Books. An extra column should be used on the debit side for income and another for donations.

The same Charge Register will be used.

Pay Patients' Ledger, General Ledger, Income Ledger, Endowed Bed Ledger, and Notes and Loans Payable Book will be kept. The principal change in the General Ledger will be the omission of the Treasurer's account with the Superintendent and the addition of Pay Patients' Accounts Receivable.

The smaller hospitals and private hospitals will not need to keep an Endowed Bed Ledger or an Income Ledger, but can keep the necessary accounts in the General Ledger.

SCHEDULE 1—STATEMENT OF CORPORATION, OPERATING AND OTHER CURRENT EXPENSES OF THE MODERN HOSPITAL.

1

Corporation expenses:	Present year	Last year
Salaries	$.....	$..... ....
Stationery, printing and postage	....	....
Telephone and telegraph	....	....
Legal expenses	....	....
Interest	....	....
Taxes	....	....
Insurance	....	....
Miscellaneous expenses	....	....
Total	$.....	$..... ..

2

Administration expenses:	Present year	Last year
Salaries and wages	$.....	$..... ....
Stationery, printing and postage	....	....
Telegraph and telephone	....	....
Legal expenses	....	....
Furniture and fixtures	....	....
Miscellaneous expenses	....	....
Total	$.....	$..... ....

3

Professional care of patients:		
Salaries—	Present year	Last year
Doctors	$.....	$..... ....
Superintendent of Nurses	....	....
Head of Nurses	....	....
Nurses	....	....
Orderlies	....	....
Apparatus and instruments	....	....
Equipment for nurses and orderlies	....	....
Medical supplies	....	....
Surgical supplies	....	....
Dispensary—		
Salaries and wages	....	....
Medical supplies	....	....
Surgical supplies	....	....
Miscellaneous supplies	....	....
Pathological laboratory—		
Salaries	....	....
Drugs and chemicals	....	....
Miscellaneous	....	....
X-ray service—		
Salaries	....	....
Plates	....	....
Tubes	....	....
Miscellaneous	....	....
Social service—		
Salaries	....	....
Medical supplies	....	....
Surgical supplies	....	....
Clothing	....	....
Miscellaneous	....	....
Emergency ward—		
Salaries	....	....

Medical supplies	....	....
Surgical supplies	....	....
Miscellaneous	....	....
Total	$.....	$..... ....

4

	Present year	Last year
Departmental expenses:		
Ambulance—		
Wages	$.....	$..... ....
Gasoline	....	....
Supplies	....	....
Repairs	....	....
Steward's department—		
Meat, poultry, and fish	....	....
Dairy products	....	....
Groceries	....	....
Fruits and vegetables	....	....
Salaries	....	....
Miscellaneous	....	....
Training school—		
Salaries and wages	....	....
Supplies	....	....
Miscellaneous	....	....
Laundry—		
Salaries and wages	....	....
Supplies	....	....
Repairs	....	....
Housekeeping—		
Salaries and wages	....	....
Supplies	....	....
Total	$.....	$..... ....

5

	Present year	Last year
General house property:		
Heat, light and power—		
Salaries and wages	$.....	$..... ....
Fuel	....	....
Oil	....	....
Waste	....	....
Lighting	....	....
Repairs	....	....
Miscellaneous supplies	....	....
Maintenance buildings—		
Labor	....	....
Material	....	....
Supplies	....	....
Miscellaneous	....	....
Maintenance Equipment—		
Salaries and wages	....	....
Supplies	....	....
Insurance and taxes—		
Rent	....	....
Miscellaneous	....	....
Grand total current expenses	$.....	$..... ....

6

Current expenses from special funds for stated purposes:	
List each separately—	
Item	$..... ....
Item	....
Item	....
Total	$..... ....
Excess of current revenue over current expenses surplus for the year	$..... ....

SCHEDULE 2

STATEMENT OF CURRENT REVENUE

	1916	1915
Private room patients	$.....	$..... ....
Board special nurses	....	....
Board of friends of patients	....	....
Ward pay patients	....	....
Special nurses	....	....
Dispensary	....	....
Emergency ward	....	....
Ambulance fees	....	....
Pathological laboratory	....	....
X-ray	....	....
Miscellaneous	....	....
Total hospital earnings	$.....	$..... ....

OTHER REVENUE OR INCOME

	1916	1915
From the treasury	$.....	$..... ....
Donations from individuals for current expenses	....	....
Donations from churches	....	....
Donations United Hospital Fund	....	....
Receipts from entertainments, etc	....	....
Legacies, unrestricted	....	....
Income from General Endowment Fund	....	....
Income from Endowed Bed Fund	....	....
Income from Partially Endowed Bed Funds	....	....
Miscellaneous fund incomes	....	....
Increase from unrestricted investments	....	....
Miscellaneous	....	....
Total other revenues or income	$.....	$..... ....

APPROPRIATIONS FROM SPECIAL FUNDS TO MEET CURRENT EXPENSES

	1916	1915
From fund	$.....	$..... ....
Total appropriations from special funds to meet current expenses	....	....
Grand total current revenue	$.....	$..... ....
Excess of current expenses over current revenue	....	....

SCHEDULE 3

SURPLUS AND DEFICIT ACCOUNT

	1916	1915
Grand total current expense (No. 1)	$.....	$..... ....
Capital expenditures—		
Real estate	....	....
Additions and betterments	....	....
Buildings	....	....
Furniture and fixtures	....	....
Tools and machinery	....	....
Apparatus and investments		
Item	....	....
Item	....	....
Item	....	....
Total capital expenditures	$.....	$..... ....
Superintendent's bills receivable charged off	....	....
Treasurer's bills receivable charged off	....	....
Loss on investments charged off (enumerate)	....	....
Total	$.....	$..... ....
Surplus for the year	....	....
Total	$.....	$..... ....

	1916	1915
Grand total current revenue (No. 2)	$.....	$..... ....
Real estate	....	....
Buildings, book value	....	....
Equipment sold	....	....
Item	....	....
Item	....	....
Item	....	....
Profit on above (enumerate)	....	....
Profit on investments sold (enumerate)	....	....
Charged off funds owing to cessation of liability of hospital	....	....
Insurance	....	....
Indemnities, etc	....	....
Total	$.....	$..... ....
Deficit for the year	....	....
Total	$.....	$..... ....

[To be continued.]

FROM OUR FIELD EDITORS' NOTEBOOKS

A Dispensary Which Has Gained the Confidence of Its Patients—Notable Happiness Reflected in Life of Oak Forest Institution

The Emanuel Mandel Memorial Dispensary of the Michael Reese Hospital

"Not that way, Grossmutter, not that way," said the field dietitian as she darted forward and caught the arm of a little, bent, old woman in a shawl who had started down a staircase in spite of a sign saying, "Do not use this stairway except in case of fire," above it in English and Yiddish lettering. All signs meant for patients in the dispensary have this double lettering, for many of the Jews who throng for treatment to this small, three-storied, brick building in the heart of Chicago's West Side know no language except the Yiddish which they brought with them from abroad.

Miss Joseph laughed and patted the little, old woman on the arm as she steered her to another staircase, for friendliness is the secret of the success of this institution's social service. Among the most interesting of the many phases of this service are the diet clinics which are held every day in the week—one for mothers of undernourished children, one for epileptics, one for diabetics, etc.

This morning eight women were moving about the little kitchen in the diabetes clinic, preparing their own lunch for the day and adding new dishes to the menu which is being built up for them week by week. Nothing is shown them which will be impossible for them to do in their own homes.

Intense practicality is the distinguishing feature of this work. "I don't talk to them about calories," said Miss Joseph. "You can tell them what a calory is, but it has no practical relation to their lives. I talk in terms of *teaspoons*—and they don't forget." They enjoy the instruction. "Miss Yoseph, she so goot," said one woman. "I weigh fifteen pounds more, and every Wednesday I am so glad and so happy, like I go to a party."

The little sealed bottles containing foodstuffs of different value were another example of the graphic illustration which is used; one bottle contained more than a cupful of corn flakes; another, the same size, only a fourth of a cup of oatmeal—here was a lesson in home economics which even the most newly arrived foreign mother could understand. Food charts in English and Hebrew are another means by which dietetic truths are driven home.

The most important means of instruction, however, is the actual experience obtained in the cooking clinics. The kitchen furnishings are simple, and the utensils are the sort which everyone may own. The lunch on this Wednesday consisted of a meatless soup, cold slaw, codfish in cream, and bran muffins. It was scarcely a task to prepare the food, but something in the nature of a diversion. "Miss Yoseph, she make things taste so goot," said one. Miss Joseph led us to the stove and showed us how the scum was stirred back into the soup—an important source of nourishment, so often wasted. "Miss Joseph, she not waste nothing," said one member with satisfaction.

In addition to the preparation of the actual meals, these women are taught to preserve and can fruits and vegetables. The results of this work stock the shelves of the dispensary.

The scrupulous attention which is paid to the religious and dietetic customs of the members of the clinic is one reason for the strong hold it has on their confidence. The dietitian, before undertaking the work, studied the Mosaic law, and the dietetic clinic is arranged to serve the most orthodox.

Careful watch is kept of the patient's condition by means of constant weighing and urinalysis, and every patient, no matter how illiterate, is taught to make a crude analysis of her own urine, so that she may report at once if anything is wrong.

The dispensary is supported by the Associated Jewish Charities and is affiliated with the Michael Reese Hospital, from which two-thirds of its entire staff is drawn. The doctors are not paid for the work they do in the clinic, but receive one dollar a call when they are sent out on cases. The dispensary has adopted the wise precaution when a telephone call is received for a doctor of sending a nurse first, who has often saved the doctor an unnecessary visit.

The work of the dispensary is very complete, including medical, dental, genito-urinary, eye, ear, nose, and throat departments, and a very large and well attended clinic for children. There were a number of babies sleeping on the benches where their mothers sat—mothers often very young, some with their native shawls wrapped about them, others in the pearl earrings and straw hats of the new world. In the bigger waiting rooms outside sat shabby, bent, old men, with their long beards between their knees, and young, bright-eyed Jews who looked as if they were only anxious to be through to get back to their American jobs.

The waiting rooms of this dispensary are numerous and well arranged; besides the main one on the first floor containing the admitting and registration desks, there is a big one on each of the two upper floors, and a special one for children and the gynecological patients. The first floor is given up to the administrative offices, and the other two contain the offices of the clinics. There are two clinics a week in each department, but a Monday patient is always a Monday patient, although his clinic is held on Wednesday also. This insures continuous treatment for every patient under one doctor, and prevents the confusion of the patients changing about.

To all except the most destitute a charge is made for dispensary service, and the status of the patient is determined by social workers. The dispensary performs a number of non-medical services for which a charge is made—sells pure milk, soya flour, and saccharine, all at the lowest possible price, but not at a loss. It has, however, one rather quaint charity—a toothbrush and powder fund with which the teeth of the West Side are kept white and shining. Prescriptions also are filled free, and about two hundred and fifty are given out in a day.

The girl at the admission desk also has charge of all the files and records relating to the patients. The number which she stamped on the last card given out was 85155, which means that 85,515 patients have been received since the dispensary moved into its present quarters eight years ago.

Social service is the mainspring of the activity of the dispensary—not as a separate function, but as a contribution to the efficiency of the whole. Patients who should come back are followed up—especially in the genito-urinary department—and no patients are given instructions

without being taught how to follow them. Sometimes this information can he given in special clinics like those of the dietetics department, sometimes it is necessary for the nurse to follow the patient into his home. Every patient who is admitted to the Emanuel Mandel Dispensary is sure that he will receive the attention that he needs, that his customs will be respected, and that all the help and information will be given him which are necessary.

The Cook County Institutions at Oak Forest

The faces of the patients whom one meets in the corridors or sees in the wards and rooms at Oak Forest are notably contented and cheerful—even happy. Mr. H. L. Bailey, the general superintendent, believes in discipline but not in the cold, institutional formality which so often

Fig. 1. Uncle Sam and Miss Columbia ready for the fancy-dress party at Oak Forest.

goes by that name. Among the measures, little and big, which help to preserve a sunny atmosphere are these:

Old couples are not separated. Husband and wife are given a cheery little apartment where they can enjoy some of the privacies of home and the comfort of each other's companionship during their declining years.

The flowers grown in the greenhouses are used to give cheer to the more seriously ill of the tuberculosis patients. Every bedridden patient into whose room I looked had a bunch of carnations. Those who prize flowers enough to take care of them are given pots of blossoming geraniums. Some of the rooms were riots of color and sunshine.

Amusements and recreations of various kinds are provided for the patients. In winter excellent picture shows are given twice a week. The amusement fund, by the way, does not come out of the county appropriations, but is provided chiefly from the sale of daily papers to employees and patients, supplemented by any donations that are made for the purpose. Last year $315 was realized in this way—a sum sufficient to pay not only for the moving pictures but also for victrola records.

Every patient, no matter how handicapped, who is able to work is given employment. The man who can not use his legs has work at which he may remain seated; the man who has only one arm is given work which requires the use of only one arm; selected epileptic, feeble-minded, and aged patients are used in the various farming operations. The tuberculosis patients are given graduated exercise under medical direction. Oddly enough, a man unable to stand on his feet makes (by means of a wheel chair) a very useful messenger. The men on the farm take a great deal of pride in their work, I was told, each trying to outdo the other and prove that his cabbages or carrots, his chickens or pigs, are better than the other fellow's.

The possession of a large farm and the employment of patient labor enable Cook County to provide generous fare for its wards (there are about thirty-five hundred patients) and still to defy the H. C. of L. The Oak Forest institutions have bought no canned goods for three years. I was shown a storeroom containing something like twenty-six tons of delicious-looking vegetables, grown on the farm and put up at a labor expense of only $30 a month for one man's wages during the canning season. This, of course, does not include the root vegetables—carrots, parsnips, turnips, potatoes, etc., or the cabbages and barrels of sauerkraut. The pork used is grown, killed, and put up on the place. Sheep are grown for both wool and mutton. Last year the slaughtering of hogs amounted to about 40,000 pounds; that of sheep to about 5,300 pounds; and that of poultry of various kinds to 6,000 pounds. About 3,400 fowls furnish poultry for the sick and for the general tables on holidays, besides helping out on the supply of eggs for the tuberculosis patients. The result is a per capita cost of living which, in the case

Fig. 2. Hallowe'en means a party for big and little, young and old, at Oak Forest Infirmary.

of inmates who require the most expensive fare, the tuberculosis patients, is a trifle less than 84 cents a day; at the infirmary the cost is a little over 46 cents a day, and, for the entire institution, including all classes of patients and employees, the average is between 53 and 54 cents a day.

Patient labor produces innumerable articles that help reduce the expense of operations in other departments besides the commissary. For instance, the material of old overcoats is sterilized and used, together with old bedticking and pieces of old shoes that are past wearing, to make, at a cost of one and one-half cents per pair for material, bedroom slippers equal to those which sell for $1.50 retail. The smaller rags are made into rugs, and the very few rags for which no other use can be found

are sold for paper. Brush brooms which would bring from $3.50 to $3.75 retail are produced at a cost of 65 cents and 80 cents. A legless man makes floor brushes. Ordinary brooms are manufactured at a cost of 28 cents, and these, by the way, are superior to the broom which retails for $1.25, for the broom corn is reinforced by a tough palm fiber, which adds to the wearing qualities of the broom. The waste broom material is made into radiator brushes. Mattresses are made in the institution, and sterilized and made over as long as the material justifies the work. When we went through this department a blind man was making mattresses and lame men who could not stand were teasing the moss. Institution garments, sheets, etc., are made in the sewing room. One of the shops is devoted to the manufacture of artificial limbs. Sometimes men come into the institution and stay only long enough to be fitted with the artificial appliance needed, for then they are able to make their own way in the world.

One of the great needs of the place, in Mr. Bailey's opinion, is a building which will provide sufficient space for all the shops and workrooms needed to provide occupation for all the patients able to work.

PUTTING SUPERSTITION TO FLIGHT IN CHINA

How a Modern Progressive Hospital Is Replacing Ancient Delusions Surrounding Disease

Situated in a community whose population is 70 percent farmers, the Judson Smith Memorial Hospital of Taiku, China, deals with people of a hardy and thrifty stock. In spite of this fact, however, the ordinary diseases of a temperate climate are prevalent, especially tuberculosis,

Fig. 1. The Chinese basket ambulance, ready for the journey.

and are greatly exaggerated by lack of hygiene and sanitation. The task of the hospital in the Land of the Dragon is a difficult one, for the whole idea of illness is surrounded by an impenetrable barrier of mysticism— an inherent feeling held by generation after generation that sickness is caused by the evil spirit as a punishment of sin.

The spirit can be driven away by the burning of incense before an idol or by the employment of a native medicine man, who inflicts upon his patient a variety of antiquated methods, such as cauterizing with a hot iron, burning sulphur or dried leaves on the scalp, or puncturing holes in the body with needles for the liberation and exit of the evil spirit which is supposedly within. In return for a goodly fee, the native medicine man will feel both pulses, following this ceremonial with an order for some twenty-odd ingredients to be purchased at the "doctor's" drug shop, boiled in a pint of water, and the juice taken down at one dose. Some of the substances actually known to be used in Chinese prescriptions are dried frogs, scorpions, rhinoceros skins, wood-shavings, flies, asbestos, crushed pebbles, moths, centipedes, toads, lizards, caterpillars, powdered snakes, and wasps.

It is to people drenched in this type of almost hopeless superstition that the Judson Smith Memorial Hospital extends its offer of modern medical and surgical help. For the entire province of Shansi, there are but three hospitals and six physicians, while, in the Smith Hospital district alone, the population is approximately over two million.

The hospital now occupies its own premises in a healthful location outside the city gate, although in its initial five years patients were received in an old lumber camp which served as a combined examining and dispensary

Fig. 2. The stretcher used for conveying injury and emergency cases to the hospital. Note the dirty padding used to keep the patient warm en route.

room, storehouse, and operating theater. Two years ago the erection of a new hospital was begun, two wings of which are now completed and in use. One of these, the Oak Park wing, is for sick women and children. It is airy, comfortable, and flooded with sunshine, in direct contrast to the homes of the patients, which seem to have been built with the main purpose of keeping out all possible fresh air and light. It contains a ward for patients, two private rooms, and a bath. The rest of the sixty patients still occupy ancient sunless courts near by, each court composed of four dingy, tottering huts of crude, dusty, red bricks. The style of architecture is, with some adaptation, Chinese, including the picturesque curving tile roofs. The natives of the district contributed largely toward the ten thousand dollars used in construction.

A constant string of patients come to the hospital to be treated and to live. Over three hundred men and women are cured each year of the opium habit, while each day cataracts are removed, victims of gun explosions, wolf bites, and other accidents are relieved, tuberculosis of bones, joints, and glands is checked, and women weakened by the senseless custom of foot-binding are made strong. Patients, rich and poor, are treated alike. The cases are largely operative, and the people regard as positive miracles the results of the knife in such simple cases as the relief of abscesses caused by the prick of the medicine man's needle or the repairing of a hare lip.

A basket, strung on a large bamboo rod, is the universal means of conveying patients to the hospital, for rubber-tired ambulances are unknown. In cases of injury, the patient is placed on a board, which serves as a stretcher, and covered with all the dirty, padded garments obtainable to keep him warm, after which he is carried to the hospital by six or eight men. Often the journey is a matter of several days.

The MODERN HOSPITAL

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Pennsylvania Prepares To Reform Its Subsidy System

The appropriation of public funds for the support of hospitals managed by private benevolent societies has long been a widespread American practice. Until very recently the voluntary hospitals of England not only sought no such appropriations, but disapproved of them in principle: Canada and Australia, on the other hand, have followed in the footsteps of the United States.

Broadly speaking, the various states and municipalities of the United States have followed two principal methods in making such appropriations, namely, the lump sum subsidy, exemplified in the practice of the commonwealth of Pennsylvania, and the per capita system, one form of which exists in the city of New York. The Pennsylvania system has long been notorious because of the lack of any uniform relation between the sum appropriated by the state and the amount or cost of the public service rendered by the hospitals.

Commenting on the Pennsylvania system, the writer has heretofore called attention to the fact that, whereas "Pennsylvania's appropriations are supposed to bear some relation to the needs of the hospitals benefited and to be proportionate to the amount of charitable work done by such institutions, there is no recognized rule for the guidance of the board of public charities, and the legislative committee which finally reviews and passes upon the recommendations of the charities board is not even bound to follow the latter's suggestions." It is not surprising, therefore, that great irregularities have existed in the distribution of public funds among the hospitals of Pennsylvania—irregularities so gross that in a given year the appropriations when analyzed were shown to be equal to over two dollars per capita per diem in the case of one hospital and only thirteen cents in the case of another.

Any properly regulated system of public appropriations for the partial support of private hospitals must insure equality of treatment for all beneficiary institutions, must establish a simple and honest ratio between work done for the community and money paid by the community, must prevent or at least discourage fraud in the admission of public patients, and must avoid the unnecessary and wasteful duplication of plant. These principles have long been recognized in the city of New York, where each cooperating hospital is required to present evidence that it has actually earned by the admission and treatment of a patient entitled to public support the per capita per diem allowance which is granted by the city in such cases. For many years it has been the practice of loyal New Yorkers to point with pride to the regulations by which the public interest has been safeguarded in this matter, and to contrast the enlightened methods of New York City with the loose and inequitable procedure of Pennsylvania. But extremes beget extremes; and if the legislature of Pennsylvania should decide to enact the bill which was introduced in the house of representatives a few weeks ago by Mr. Sarig, Pennsylvania will hereafter exercise a more rigid control over its appropriations than has ever been dreamed of in New York. Here are some of the provisions of the Sarig bill:

1. No hospital will receive an appropriation unless after investigation the board of charities and the commissioner of health agree that it has proper facilities for rendering treatment. 2. The state will fix minimum rates. 3. The board of public charities will prescribe methods of accounting designed to show the actual cost of the maintenance of poor patients. 4. If patients pay part of the cost of maintenance, the state will be responsible for the payment of the remainder only. 5. Unless a patient is actually committed by the poor authorities, the superintendent of the hospital will be required to certify that neither the patient nor those legally responsible for him were able to pay, such certification to be made after due investigation and to require the approval of the poor directors of the county. 6. *The amount*

to be paid to any one institution in any one year shall be the amount properly chargeable for the care of destitute patients, after deducting all voluntary contributions for maintenance, all payments for or on account of poor or destitute patients, revenues received from investments, and all donations except those specifically appropriated by the donor for some other purpose. 7. The state board of charities shall have the right to investigate the management of any institution receiving money from the commonwealth, to prescribe the manner of keeping accounts, and to decide what deductions shall be made from the estimated cost of maintenance, in order to ascertain how much the institution has the right to receive.

These regulations, which are embodied in the Sarig bill, are entirely sound in principle, and no objection can reasonably be made to them if they are fairly interpreted and applied.

Assuming that the commonwealth is prepared to make appropriations sufficient to cover the actual net cost to the hospitals of caring for patients who may properly be regarded as public charges, the effect of the new system will be to relieve the private hospitals of all financial responsibility for the care of such patients, except in so far as the cost of their maintenance is provided for by the hospital's current legacies and donations and its invested funds. The hospital might, however, reasonably ask for an amendment of the bill so as to provide that unrestricted legacies need not be applied for current support, but may be added to the capital. The fairness of such a proposal would doubtless be recognized by the sponsors of the bill.

Those sections of the bill which confer upon various state officials the right to investigate hospitals, to prescribe forms of accounting, to compel the production of books, and to examine witnesses are demanded by the public interest, but they might easily lead to injustice and petty persecution in the hands of narrow-minded bureaucrats. It is a grave question, however, whether there is any need for certain clauses in the bill which authorize the state board of charities "to correct extravagances of any kind" in the administration of the hospitals, and more especially for the clause which authorizes the board *"to require such reduction in the number and salaries of employees and other expenditures as it may think proper."*

The representatives of the state may perhaps ask how costly extravagances are to be prevented if these clauses in the bill are eliminated. It would seem to the writer that the state board is given ample authority in other sections of the bill, which empower the board to decide precisely what deductions shall be made from the gross cost of maintenance in estimating how much the institution shall have the right to receive. It is far from desirable that hospitals, which in many instances are centers of medical and nursing education and which have many functions besides the function of caring for the destitute, should be subject to such unrestricted control as the Sarig bill would impose upon them. Hospitals may with justice and wisdom desire to maintain higher standards of service than those which are deemed sufficient by the state board of charities, and it is contrary to public policy that the state board shall have the right to curtail the excellence of hospital service. The state may say properly how much it will spend, not how much others may spend, for charitable purposes. Perhaps controversy over this question can be obviated by changing the proposed method of appropriation to a method corresponding to that of New York, where a fixed per capita allowance is made which is supposed to bear some relation to the cost of maintenance upon a scale satisfactory to the public authorities. In New York City the hospitals are free to go as far as they like beyond this scale, but in doing so they spend their own money and not that of the taxpayer.

If the Sarig bill is enacted in its present form, it may impede the progress of the hospitals of Pennsylvania, while the hospitals of other states are continuing to advance. Surely it cannot be the aim of the sponsors of the bill to produce any such result.

S. S. Goldwater, M. D.

What Is the Matter with the Rural Hospital?

One of the best-known of our state health officers replies to a question as to the bearing on rural hospitalization of his investigations into rural hygiene:

"Our rural hygiene investigations have no relationship that I can see with hospitals. The problem of rural hygiene is not a hospital problem. It is not cure that the rural dweller needs; it is prevention."

The obvious reply is, "Prevention is better than cure, not in the country alone, but everywhere. If the dweller in the country has tuberculosis, a broken leg, or an abscessed tooth, does he not need cure as much as the city dweller similarly afflicted?"

No one, however, needs to be reminded of self-evident facts—certainly not our distinguished correspondent. The reply meets his words and not his underlying meaning. We question whether his impatience with the rural hospital does not

really point toward the fatal defect in our present conception of that institution.

The average small hospital has no idea of any mission which has not been defined in large letters by the great hospitals of our large cities. Now, the function of these hospitals—of *the* hospital, as we have been wont to say and to think—is three-fold: first, treatment of disease; second, education of the rising generation of practitioners; third, research into the cause and cure of disease. The size of large hospitals does not necessarily mean that they are contributing their share toward treatment, medical education, and scientific research; but the sheer scantiness of clinical material—not to speak of other factors—in small hospitals does most certainly mean that they are at a serious disadvantage in all three respects. Treatment, medical education, and scientific research can never reach their highest point of efficiency except where large numbers of patients are gathered together. Still, the ideal of the small hospital, so far as it has an ideal, is molded on that of the metropolitan institution. The conscientious superintendent of the average small hospital strains wearily after an unattainable standard; the one who is not conscientious gives it up and sinks into the morass of inefficiency and petty local jealousy and intrigue.

Now, is it not possible that, after all, the rural hospital has a field of its own, in which it need not apologize for its very existence? May it not be that the incubus of an unattainable ideal is what has hindered the small hospital from perceiving and developing ideals of its own—ideals just as high, just as worthy, and just as valuable to the world as those of the large hospitals? Suppose we were to start from the ground up, rather than from the rooftree down, and, instead of asking, What faint and far-away resemblance to the great city hospital can we evoke at the cross-roads? we were to ask, What do we most need at the cross-roads in the interests of the health of the community? Does not the fact that our correspondent can say that "the problem of rural hygiene is not a hospital problem" point toward the loose screw in our concept of the rural hospital?

We have heard of at least one very small rural hospital (concerning which we hope to have more to say some day) which is the work of a man with a vision—a vision of great things to be wrought, and also an illumined insight into the actual conditions by which he is surrounded. In other words, the local habitation of his vision is the rural town in which his lot is cast—not Rome or Babylon or New York—and his hospital, instead of being a bone of contention among local practitioners and tradesmen, has become an actual force which is helping to mold the life of the community into higher and better forms.

What is the true field of the small hospital? We question whether anyone is at present in position to answer with finality. Pending such study as may permit a fairly authoritative reply, we venture to ask, Should it not be first and foremost an educational institution? To medical education the small hospital may be able to contribute little; but can it not do all the more to educate the people of its community in hygiene and right living? The small hospital may be able to add little to our scientific knowledge of disease; but can it not give us practical studies of the actual sanitary and hygienic condition of the people? At best, the facilities of the rural hospital for the treatment and cure of disease can never equal those of the great metropolitan institution, but, to make up for this handicap, has not the rural hospital an opportunity, by making itself a vital force, an integral part of the community life, to do an unparalleled work in preventive medicine?

What we lack at present is leadership. We are inclined to ask, however, whether anything will do more to call real leaders into existence than the formation of a new concept, a practicable ideal, a constructive program, a field for real leadership.

Nursing in Families of Limited Means: The Problem

The question of nursing in families of limited means has long been an acute one. Many families considerably above the dead line of poverty and charity are sustained on incomes less than the salary of a trained nurse. If sickness occurs in such a family, domestic reasons may make it impossible to remove the patient to a hospital; nor, indeed, are the existing hospital accommodations sufficient to provide for all such cases of sickness. The only care received by the mother of a family, sick in her home, may be that given her by her own young children, or by a busy neighbor who "looks in" for a few minutes each day. Attention was focused on the problem by the recent epidemic of influenza. Unfortunately, discussion of the question has, in some local instances, at least, resolved itself largely into recriminations between physicians and nurses.

Physicians have said, in effect: You nurses are too often unwilling to do the work which needs to be done; you want to pick and choose tasks which you like. You are unwilling to do poorly paid work; some of you have been known to take advantage of epidemics and other emergencies by demanding excessive pay. You are sometimes autocratic and dictatorial; and you are not fur-

nishing the service needed in homes where sickness is a financial burden. Your high standards of education and training are maintained primarily for your own benefit. We want greater obedience and more willing service, even if we have to accept nurses with less education and training.

Nurses have retorted, in effect: We have never pretended to be angels, and we claim some of the privileges of fallible humanity. Physicians do not hesitate to select the field of practice which pleases them best, and, if a physician is able to make ten thousand dollars a year, he is called, not an extortioner, but an eminent and skillful practitioner. There are slackers and profiteers in other professions than ours. We take all the risks that physicians run; we undergo hardships and perform drudgery which they do not share; and we are forbidden, under penalty of being called extortioners and profiteers, to ask more than the fixed standard rate of pay. By what authority are we summoned to the bar of judgment by a medical profession which practices as it pleases, charges what it thinks best, and indignantly rejects any suggestion that it submit to regulation for the benefit of the public?

Both sides speak with bitter sincerity. The worst of it is that, no matter which side is emphasized, the public suffers. Are there any conclusions which can be drawn by an outsider in the controversy? Apparently, it is safe to hazard two:

On the one hand, if artificial barriers are hindering women who could and would give good service at the bedside of the sick from rendering that service, those barriers must come down. Any standards of educational requirements and training maintained solely for the purpose of making the nursing field a closed preserve must give way before the public need. On the other hand, we may as well concede the annoying and deplorable fact that attempts to exact of nurses a degree of altruism and abnegation which are not expected of or practiced by anyone else have slight chance of success.

Let us disregard, for the moment, all questions of professional standards, and look at the matter solely from the point of view of supply and demand in the labor market. What is our demand? "A right personality,"[1] "intelligence," "fair education," "training of sufficient length, probably one year, in a good hospital," readiness "to assist in the kitchen and even to help care for the baby," health and strength sufficient to enable the "physician's assistant" and "household helper" to cope with the array of tasks thus suggested, and willingness to accept pay below "the high price of the expert nurse" and within the reach of "people of moderate means, too self-respecting to accept charity."

The last-mentioned requirement may conveniently be taken up first. What charges are within the reach of people of moderate means?

Ten dollars a week would be felt as a severe strain by many families "too self-respecting to accept charity." Servant girls, however, are eagerly sought for at ten dollars a week, and, as the servant has no periods out of work unless she chooses and consequently does not have to meet her own expenses at any time, or the constant overhead expense of a room to return to "between cases," the financial advantage, at this figure, is clearly all on the servant's side.

Shall we say fifteen dollars a week? Scrubwomen and laundresses have long been in keen demand, when not actually unobtainable, at two dollars and a half to three dollars a day, or fifteen to eighteen dollars a week. The scrubwoman or laundress, it is true, is usually at the expense of one meal each working day and her own maintenance on Sundays, but, to offset this, she has no periods of waiting "between cases." And, be it remembered, we do not scrutinize too closely the "personality," "intelligence," "education," and length of training of our cooks, scrubwomen, and laundresses.

Twenty dollars a week is as far beyond the means of many families "too self-respecting to accept charity" as two hundred dollars a week. Families not entirely devoid of self-respect have been and are even yet being reared on incomes exceeding twenty dollars a week very slightly, if at all; but their savings would not keep the wolf from the door many weeks if the breadwinner were ill, even without the added expense of doctor's bills, medicines, and nurse's salary.

Is the problem, then, insoluble? There is a key for every lock; but no problem can be solved by ignoring an essential element in it. One essential element in this problem is the fact that there are 385 gainful occupations open to women. If, among those 385 occupations, a woman can find one that pleases her better than nursing and offers her equal chances of success, the odds are that she will take that one in preference to nursing.

Another important element in the problem is the fact that a reduction of 40 or 50 percent in the nurse's salary is not going to bring her services within the reach of a large section of the population that needs those services.

Later we shall discuss some of the suggested remedies for the lack of nursing help in homes of small means.

1. Jour. Am. Med. Assn., Jan. 25, 1919; reprinted in THE MODERN HOSPITAL, March, 1919, XII, 208.

The Superfluous Imperfections of the Human Machine

As we remarked some time ago, the study of industrial efficiency focuses on the machine.[1] Lee[2] says:

"In the selection, construction, and use of the machine nothing is left to chance. Its type is selected in accordance with its exact fitness for the work demanded of it. It is constructed of appropriate materials and is so designed as to avoid lost motion and the waste of energy involved and to allow the highest possible proportion of the total energy that is transformed to perform the work required. It is kept clean, unnecessary friction is avoided, and every care is taken that its bearings shall not become corroded, rusted, or worn beyond repair. When in action it is run at a speed for which it is planned, and is not overloaded, and not overheated; the conditions under which it can work with the greatest efficiency have been carefully studied; and every effort is made to maintain these conditions and secure the largest possible output without injury or unnecessary deterioration of the machine itself. And the machine, it should be added, responds to all the care expended on its welfare and proves by what it does the value of the efforts made in its behalf."

As Professor Lee remarks elsewhere, the view of the human organism as a machine is in many respects justified, and there is nothing derogatory to the worker in the conception. The human machine is the most complex, the most essential to industry, and the most neglected of all forms of machinery concerned. Perhaps we ought to feel encouraged by the observation that the human machine is at last receiving careful consideration at the hands of the masters of industry.

One further fact, however, must be taken into account in connection with the human machine. It has a fatal defect—a defect of superfluity. A machine which, devised to grind wheat, should declare its intention of spinning silk, would certainly exasperate the miller. The human machine, in other words, has been spoiled by the presence of elements superfluous in a machine—desires and dislikes, interests and will. And while the human machine has certainly been neglected from one point of view, it has perhaps been taken too seriously from another. Possibly one reason for some of our industrial misunderstandings has been the fact that employers have not always realized that the fatal defects of the human machine are irremediable.

We hope, therefore, that, where Professor Lee's valuable little book is read, Ordway Tead's volume[3] on "Instincts in Industry" will also be read to balance it. Less scientific in method, because dealing with a set of facts far more difficult to systematize and also completely neglected hitherto, it is even more thought-provoking. Someone has said of this book that working-class psychology appears not to be so entirely different from the psychology of other classes. This is in itself an observation not without importance, and apparently not always self-evident. To quote Mr. Tead, "a knowledge of the human tendencies—from the parental through the entire list to curiosity—has thrown light on facts which may heretofore have seemed to be without sense or reason. The individual is now seen as a part of a compact of ascertainable impulses who acts as he does because no forces, exterior or interior, are at work to influence his behavior."

That we are beginning to accord to the human element in production a degree of attention almost equivalent to that bestowed on the mechanisms of iron and steel which it serves, is a fact good as far as it goes. The next thing to remember is that "the human machine" is an incomplete formula and one on which only limited reliance can be placed.

The Intern Situation in Hospitals

There has been of late years a remarkable change in conditions with regard to interns. Not many years ago the problem was where to find internships enough to give training to all medical graduates. At present, on the contrary, the demand for interns is greater than the supply, and it is questionable whether the number of interns will ever again be sufficient to meet the demands.

From the point of view of medical education, the change is a most desirable one. It insures that hereafter hospitals will be unable to exploit their interns by using them to take the place of orderlies and clerks while offering them no return in the shape of training. It also becomes possible to provide that interns shall not accept positions in hospitals which have not adequate facilities for giving the training which these young men should have before their entrance into general practice. As Dr. J. M. Baldy of the Pennsylvania Board of Medical Education and Licensure has pointed out, no hospital has an inherent right to an intern, and no institution should be allowed interns which is not in a position to afford them adequate training.

From the point of view of the hospitals which, through no fault of their own, are now unable to obtain interns, however, the situation at present has, in many cases, the aspect of calamity.

1. A Problem in Efficiency, THE MODERN HOSPITAL, Jan., 1919, XII, 1, 45.
2. Lee, Frederic S.: The Human Machine and Industrial Efficiency. Longmans, Green & Co., New York, 1918. Price $1.10.
3. Tead, Ordway: Instincts in Industry, Houghton Mifflin Company,

Replies to a questionnaire on the subject, sent out by THE MODERN HOSPITAL, indicate various degrees of disorganization and detriment to the service, owing to lack of interns. The work suffers at various points; records are not written, filed, or indexed; laboratory work is neglected; the surgeons lack assistance; and emergency cases have to wait for the attending physician.

The majority of complaints refer to parts of the service which do not require medical training or a medical degree for their satisfactory performance. In fact, a large number of replies to the question whether graduate nurses have been employed as anesthetists, surgical assistants, laboratory technicians, or clerical registrars, indicate that, in cases in which graduate nurses have been so employed, their services have been entirely satisfactory. Some correspondents even went so far as to say that the graduate nurses give better satisfaction than interns, who, of course, are only temporary incumbents, and may therefore feel less interest in the work than one who looks forward to continuing in it as a life career.

Dr. S. S. Goldwater, director of Mount Sinai Hospital, New York, and one of the editors of THE MODERN HOSPITAL, has suggested that the best way out of the present difficulty is to establish a course of training to enable available women of suitable education, preferably graduate nurses, to take the place of interns so far as they can. Women have been intensively trained, and are being successfully used as anesthetists and laboratory technicians. Such women have, however, been trained to serve exclusively in the capacities named and are not qualified for the broader work of clinical aids. Almost all of the women who have taken this special training have been absorbed by large hospitals, and the movement so far has brought no relief to the small institutions.

Dr. Goldwater believes that in a period of nine to twelve months an intelligent graduate nurse can be taught to perform that part of an intern's work which does not involve diagnosis and treatment. The course suggested by Dr. Goldwater includes training in anesthesia, first aid, surgical dressing, laboratory technique, history taking, operative technique, and clinical records. It will, of course, be necessary to control the supply of graduate nurses trained for such duties, so that no hospital may deliberately lower its standard by employing the proposed clinical aids to take the place of available interns, or to engage in any form of diagnosis or treatment—procedures which belong to the medical graduate and to the medical graduate only. With this proviso, it is believed that the proposed measure will be of great assistance in raising the standard of small hospitals which are really in earnest in their desire to do good work.

THE MODERN HOSPITAL desires to aid in the establishment of the course of instruction proposed, and it will be glad to receive suggestions from hospital administrators as to the desirability of the course and the methods to be pursued in establishing it. We wish to express our appreciation to those who have already lent their aid by replying to our questionnaire, and we shall be still more deeply indebted to those who will favor us with their views on the plan above outlined.

Combating Venereal Disease

A letter from the American Hospital Association, which appears on page 308 of this issue, lays before the hospitals of the country the need of active cooperation in the fight against syphilis and gonorrhea. What the War Department accomplished in safeguarding and caring for our fighting men is known to all. This letter is timely because it calls to the attention of the hospitals a fact which may not be generally known—namely, that the United States Public Health Service, in cooperation with the state department of health throughout the country, and with considerable funds provided by Federal as well as by local authorities, is leading a permanent, all-the-year-round campaign to provide adequate facilities for the diagnosis, treatment, and prevention of venereal disease.

The hospitals of the country, both in their wards and in their out-patient clinics, have facilities at command which are of vital importance in the prosecution of this campaign, and the cooperation of the hospitals and dispensaries is essential. Public opinion on this matter has advanced rapidly during the last two years, and the hospital and dispensary which does its part in treating syphilis and gonorrhea, and in cooperating with public health authorities in their prevention, need not fear opposition. Such a policy, rightly carried out, will broaden the public backing and support for the institution. Superintendents and boards of hospital trustees may well give attention to the opportunity afforded them for participation in this great national program.

It Will Pay You To Have Your Own Mechanics

Superintendents who are careful in their expenditures do not like to employ outside mechanics to do repair work. They prefer to have their own mechanics. Permanent employees understand better how to adapt themselves to hospital conditions, keep out of the way, and if properly supervised, accomplish more work. As they have permanent positions, they are content with moderate wages.

Check Up Each Month's Loss Through Breakage and Misuse

The very first step in the promotion of thrifty habits is the taking account of items handled in the daily routine and their cost. A good method which is practised in some hospitals is to tabulate for each department each month the name and cost of each article broken or destroyed by misuse. The lists are distributed to the head nurses, to be by them presented to the pupils. This has the advantage of not only bringing to them the total cost of breakage each month, but of giving an opportunity for comparison between different wards or departments. The carelessness of workers in one department is often best appreciated when contrasted with those in a different department, where more care is exercised.

Establishment of Quota as Basis for Supply System

It is helpful to establish the number of articles of different kinds needed for each service or division; fill these quotas, and thereafter replace only on condemnation. Frequently a condemnation system is in use without an established quota, but both are needed for good use control. By this method comparison is readily made between the careless and the careful employee.

Be Sure You're Right Before You Buy

The introduction of new and untried appliances at the request of doctors and others has proved very costly to many hospitals. There are many persons who will cheerfully agree to try out any new device no matter how impracticable it may be, provided always that someone else pays the bills. A large percent of these untried appliances soon find their way to the scrap heap.

Clean Doors in the Operating Suite

If the lower half of the swinging doors in operating room suites is covered with gray burlap finished thoroughly with a heavy washable paint and a glass plate is provided for that part of the door which the hand touches, the doors will keep much cleaner than the white enamel ones which usually show in startling contrast the greasy or bloody finger marks defacing them.

Weigh Your Garbage to Avoid Waste

A very successful hotel man once said that the way to save in your kitchen was to sit on the swill barrel. Try weighing your garbage. Tell your people from week to week how many ounces per day per person is being wasted. You will be surprised at the result.

THE LATCHSTRING OUT

Mrs. Lina Stryker Fish, general housekeeper of the Municipal Tuberculosis Sanitarium, Chicago, reports to us some very interesting work she has done in connection with the movement for community laundries in rural districts. Mrs. Fish's investigations have been chiefly along the line of motor power to be used in the running of such community institutions, and she has made a close study of the various advantages of and adaptations to gas, steam, water, power, and stove heat. This system of laundry will supply the needs of any number of people seeking its service. The expense will depend upon the motive power and equipment. Mrs. Fish believes the community laundry is certainly a step in the right direction, and she feels that the plan is an ideal one for small districts which are striving to combat the high cost of living as well as for cities where the underlying principles will work out satisfactorily.

Mr. Michael M. Davis, Jr., director of the Boston Dispensary, who is in charge of the public health phase of the Americanization study of the Carnegie Corporation (not to be confused with the Carnegie Foundation), is making an extended trip for the purpose of ascertaining the big health problems which must be tackled and solved in the Americanization of those who have come to us from other lands. For instance, in the matter of the midwife, a study is being made (employing also the results of previous investigations) of the problem of regulating and standardizing the work of the midwife among the immigrants and in teaching the public health nurse and preparing her for obstetrical service among this class of people.

When the investigation and preliminary work has been completed, the results will be published as a volume, and Mr. Davis expects to begin work on the literary portion during the early summer.

The work is being carried on in connection with other bureaus and agencies, such as the United States Public Health Service, the Department of Labor, the Postoffice, the superintendents and the social service departments of many hospitals and dispensaries, the various visiting nurse organizations, etc.

Mrs. Sidney McCallin of St. Dunstan's Hostel, London, spoke most enthusiastically of her work for the civilian blind on the occasion of a recent visit to our office.

Mrs. McCallin came to America after two years' work at St. Dunstan's (which was described on page 295 of our October issue and page 163 of our March issue), and was amazed to find Illinois lagging behind in its blind activities. She realized that the blind are an industrial asset to the state and she found that the only place in Chicago where any effort along this line was being made was at the Lighthouse. Through the cooperation and new interest of well known Chicagoans, Mrs. McCallin has been able to give a great impetus to the industrial work at the Lighthouse which was in its infancy a year ago. Florist baskets and baby carriage bodies are made there and marketed through the regular trade channels.

Under the direction of Edith L. Swift a whirlwind campaign of publicity has shown remarkable results. Two thousand new members have joined the Improvement Association for Blind People, the organization which conducts the Lighthouse at 3323 West Twenty-second Street. The interest of the Board of Education has manifested itself in two directions: First, by giving four portable houses to the Lighthouse and so increasing its workshop capacity; and second, by the opening of evening classes for the blind in the Medill High School, where typewriting, business English, and dictaphone operating are taught. The first class for blind masseurs to be established in America is the one about to be graduated by Peter J. Peel and placed in Chicago hospitals.

Sir Arthur Pearson's purpose in coming to America was to promote a national organization for the blind, and his objective is about to be realized. Mrs. McCallin said "Illinois must shortly take its place as a spoke in the great national wheel, the hub of which is 'Evergreen,' the government home for the blind near Baltimore." In her opinion the soldiers at Evergreen are the war's great heroes, for, in sacrificing their sight, they, who number 224, have called attention to the 100,000 blind civilians of whose existence America was previously almost unconscious.

"SISTER"—A MEDICAL STUDENT'S STORY

Between Gallipoli and Alexandria—The Hardest Work of the War Not Done in the Trenches

Crackle, crackle, crackle! Rifles were snapping vigorously, and the Anzac slopes were lighted up by fiery spurts which gleamed redly in the darkness. It was good to hear the sound of battle behind us and not in front, as we were badly wounded men being rowed to sanctuary.

"We are safe now," said a youthful North Countryman. But he spoke too soon. "My God! I am hit again," he gasped. The weak murmurs of two others told the same tale. The fourth man hit by the rain of bullets never spoke; he had been shot through the brain.

"They might spare the wounded men," gasped the man next to me. He had been shot through the lungs. Another shower of bullets missed us, and soon we pulled up alongside a hospital ship ablaze with light. The casualties had been unexpectedly severe, and we were not surprised, though dismayed, when the C. O. of the ship called to us: "We are full up. We have over double our number." Our own N. C. O. called out, "Many of these chaps have been wounded for the second time, a few moments ago, and there doesn't seem another ship to go to."

"Then you shall all come to us; but it will be a tight squeeze."

Soon we were all lying on the top deck, which appeared to be strewn with the wounded and dying. A sister was moving from man to man, performing wonders in an incredibly short space of time. I watched her wonderingly, her fingers were so skillful and so swift. Once she was roused to fury. A crowd of wounded "walkers" had just been deposited on the deck, and the harassed R.A.M.C. sergeant turned on a grumbler with a snarl, "Don't you understand you are on sufferance here?"

The sister sprang up. "Sergeant, how *dare* you say that?" Turning to the patient, she said, gently, "He cannot quite express what he means. We have over double our usual number, and those with minor wounds can not get adequate attention, but do not doubt your welcome, you poor wounded men."

An M.O., finding that my wound was serious, ordered my removal to a large ward with a hundred patients in cots. About twenty were lying on blankets on the floor. One sister and two orderlies were working at lightning speed. The heat was intense, and the ward was airless. Sister's face was as white as chalk, and as she stooped over the dressings she constantly drew her overall sleeve across her streaming face. "Orderly," I heard her say, "I must have the medical officer, if possible. See if he has finished in the theater."

Off the orderly sped. He soon returned. "The doctor is doing operations still, Sister, and he won't be ready for some time. I can't get anyone to come; they are all busy with their own cases."

Sister's lips tightened, but she went swiftly on, treating shock and collapse, controlling hemorrhage, and doing urgent dressings. Her trained eye continually kept watch over the maimed and dying men under her care, all the while she gave quiet and concise orders to her subordinates. I could see at once where the trouble lay. Although the experienced sister could direct inexperience, she had only one pair of hands, and could deal with only one pain-racked body at a time. Presently she sped along to me.

Canadian Official Photograph. From Underwood and Underwood, N. Y.

This was a common scene on the battlefields of France. In this case it is a Canadian R.A.M.C. who is seen giving a drink to the wounded man whose stretcher has been for the moment laid upon the ground.

"Where is your wound?" Noting with satisfaction that it could wait for some hours, the next question was, "Have you had any food?" "No, Sister."

"Orderly!" At the voice, gentle enough, but with the note of command we always expect from those who wield authority, the feeding orderly hurried up and ministered to my needs. "If your pain becomes unbearable, just call out and I will give you something for it," said Sister.

The ship began to move, and we realized that the Dardanelles were being left behind—not for the last time by some of us!

The hours crept on. A night sister came into the ward. She looked very worried. "Nearly two thousand men in charge of three night sisters!" she remarked, bitterly. "How can we cope with it all? It's appalling to be so short-handed."

"Do all you can," said Sister, "you can't do more. You needn't worry about this ward, I shall not leave it tonight. I can't get the doctor, and still a third of my cases need attention."

"You'll be worn out, Sister. You can't work day and night."

"It's a case of *must*, Sister dear. I *won't* leave these men with an untrained orderly and an overworked night sister; but, oh! for some English coolness! This heat drives me mad."

The two day orderlies went off duty, and one poor bewildered lad, who had never before tended a wounded man, found himself night orderly.

An anemic-looking very young ship's engineer hurried up to Sister. "I am off duty now. I've come to help you, Sister. Everyone is working like forty devils on the decks and everywhere. The wounds are terrible."

"You are a godsend. Please go to the kitchen and fill a dixie with cold water and lemon squash. Put in as much ice as will make it really cold, and give every thirsty man a good drink, except the men who have red tape tied to their cots. If they drink iced stuff it will kill them. So be careful."

"Thank God for that!" gasped the thirsty men. When Jackson appeared with the dixie Sister had further instructions. "If you find any man unconscious or in terrible pain, please come and tell me at once." She stooped over her dressings. The poor patient had been badly burned through a bomb, and she was trying hard to save his eyes. Jackson came flying back. "I have found a man who asked me to turn him over, as he was shot in the back; as I tried to move him I heard a splash, and, Sister, his bed is full of blood."

Sister grasped a tourniquet and her drum of dressings and ran. "Orderly, fetch the doctor."

The orderly returned. "The doctor can't leave the theater, Sister."

Sister was successfully stemming the flow of blood with expert fingers which never faltered; but she needed assistance, and to her explicit instructions the orderly turned a deaf ear and a piteous face. "I can't abide the sight of blood," he whispered, "and I'm feeling very sick." He crashed down on the floor. Jackson kicked him aside savagely. "*His* job should be taking babies out in prams," he said, angrily. "Let *me* help you, although I am but a fool." Together they changed the soaked sheet. The patient was collapsed and almost lifeless. "This man needs expert attention for quite an hour, Jackson," said Sister. "I have not time to nurse him, and if he isn't properly nursed he will die. Any moment other cases may start hemorrhaging. I wonder if the stewardess would help me—do go and ask her."

Jackson raced off and returned with a reliable-looking woman. "She was working on the deck, but I made her come," he said.

Sister smiled her thanks, then gave some rapid instructions to the stewardess, who warmed to her task.

My wound was aching horribly, but I hated giving the overworked woman trouble; however, the pain became so agonizing that I called out. Sister was by my side instantly—kind, alert, and helpful. "Poor man, the pain must be terrible," she said, softly. She was manipulating a hypodermic syringe.

"It's terrible that any woman should be driven as you are," I said, impulsively. "The responsibility alone is far too much. I am a medical student, and I understand something of what you must feel."

"The trouble is the absolute inexperience of the orderlies," she said, sadly. "They are splendidly willing and hard-working, and they can't help their lack of skill. I am giving you morphia," and, because I was a medical student, she added, "My M.O. allows me to give it at my discretion." The morphia gave me a blessed respite from pain, but sleep was impossible, and all through the night I was conscious of a strong personality in the ward, of a white-capped woman who kept watch vigilantly, and who worked unceasingly.

The next day Sister worked as untiringly as though she had not worked through the previous day and night in an indescribable atmosphere. Her face looked gray through the chalkiness, but the blue, pitiful eyes were serene. The ward M.O. looked grayly tired, too, but he worked heroically on. One of the penalties of having the ship's best surgeon was that he was so often called off to operate on other men's cases.

Only once did I see Sister completely lose her serenity. It was when her most capable orderly was torn from her. She disliked the substitute; so did the patients. Hitherto the day orderlies despite their lack of skill had been nearly all that orderlies should be; but the newcomer appeared to have but one mission in life, and that was to dodge his urgent duties and Sister's all-seeing eye. She did not discover his deficiencies at once, and the finding out was bitter. One of the patients had been shot through the abdomen, and for two days did well. On the third day Sister watched him anxiously; untoward symptoms were appearing. Suddenly he became restless, with clouded brain. "Orderly, keep a strict eye on Bed 4 while I find the M.O." Being one of those excellent persons who give clear explanations, she added: "I know the doctor is operating, but he may give me permission to give the patient a sedative, if I explain things. Don't leave him; if he gets out of bed he will die; his life depends on his being kept very quiet."

"Very good, Sister."

The doctor had finished operating, and was on his way to the ward; Sister met him just outside and explained matters. The orderly, depending on Sister's absence for about seven minutes, had hurried to the kitchen to imbibe a hidden bottle of beer. The poor patient, becoming more restless every moment, tore off his dressings and stumbled out of bed. The captain had sent down a basket of fruit to the ward, and it had been distributed to the patients whose wounds did not interfere with their appetites. When the horrified doctor and Sister entered the ward, they found their cherished patient looking out of a porthole eating an apple. The unconscious orderly, hurriedly reappearing, met the full blast of Sister's withering scorn. Turning to the M.O., she said passionately, "Please insist that this orderly is removed at once. We have quite enough to bear without seeing our brave men die through sheer brutal carelessness." The orderly was removed.

And, thanks to Sister's almost superhuman efforts, the patient did not die.

As we neared Alexandria the heat and airlessness became even more intolerable, and we all suffered badly. Our indomitable sister worked steadily on, nursing, dressing, encouraging, and directing.

"Do you ever get downhearted, Sister?" I queried once. "Yes; but only over one thing. I want twelve hands, instead of two, and a relief brain when my overworked article becomes deadly tired."

"You are understaffed!" I said, indignantly. "It's extraordinary that nursing sisters should be driven so."

"Things will improve," she answered. "We are not really accustomed to war yet; besides, we have double our usual number of patients. And," she added, "could one *ever* do too much for you splendid men who faced hell at Gallipoli?"

When we reached Alexandria, and the disembarking began, Sister personally superintended the placing on the stretchers of every wounded man, and where necessary she administered milk and brandy and encouraging words.

"The captain has steered his ship, but the sister has steered *us* to port," said an Irishman, thoughtfully. "And, bless my soul! She's sorry to see us go."

The disembarkation officer was hurriedly striding through our ward. "This is a splendid ship. You men are in clover here. The poor fellows who have been brought down in transports have not fared like you." He was hurrying past my bed. I was only a humble private, but one moved to an intense appreciation of a nursing sister's work. "Sir," I called out, "Sir."

He halted. "Well, my man?"

"I only wanted to say, sir, that while we have been lying here, we chaps have realized that the hardest work is not done in the trenches."—*The Nursing Times.*

THE FIRST TRAINING SCHOOL FOR NATIVE NURSES IN HAITI

Establishment by Two Members of Navy Nurse Corps Under Supervision of Public Health Service—Improvement of Deplorable Hospital Conditions by Officers of Marine Regiments—Newspaper Campaign and Influence of Sisterhoods in Arousing Interest of Natives—Results of First Quarter's Work

By LUCIA D. JORDAN, Chief Nurse, U. S. N., Training School for Nurses, Port au Prince, Haiti

The first training school for nurses in the Republic of Haiti was established as the result of plans laid by Commander Norman T. McLean, U. S. N., shortly after his appointment as sanitary engineer of Haiti. At his request, two members of the Navy Nurse Corps were detailed to duty in Port au Prince, Josephine Y. Raymond, nurse, U. S. N., and myself, and in July, 1918, we were assigned to the duty of establishing a training school for native Haitian women.

The great mass of the 2,000,000 inhabitants of the negro republic are illiterate and without the most elementary ideas of hygiene. The hospital situation in Haiti at the time of the occupation was deplorable. The naval medical officers attached to the marine regiments stationed in Haiti undertook such improvements as were possible. In the City General Hospital, Port au Prince, their work was so successful that, when its control was assumed by the Public Health Service December 1, 1917, it had been brought to a workable basis from an almost hopeless condition of squalor and filth.

The necessity for Haitian trained nurses had long been recognized, but their training could not be undertaken until after the Public Health Service had been developed to a point where the school could be properly administered.

Most of the hospitals of Haiti had been more or less under the general administration of the various French sisterhoods, who had worked under the greatest difficulties to care for the sick. Although they were not trained nurses, they labored continually to maintain the hospitals. They were, however, greatly handicapped by lack of money. The various institutions had no regular income but were dependent solely upon contributions from the state and private sources.

Much preliminary work was necessary before the actual work of establishing the school could be begun. It was necessary to interest the better class of Haitian women in the plan, and this was done through a number of articles in the daily press and through the influence of the sisters both in the hospitals and throughout the island.

More than fifty applications were received. Of this number, forty-nine were eligible, and twenty-three of these formed the first class of probationers of the first training school for nurses in Haiti. The class was necessarily limited to twenty-three, as there were accommodations for that number only. The course is two years, the first three months of which are the probationary period. The pupils are carefully graded, and at the end of the course a diploma will be given to those who have successfully complete the required work.

The first session of the school opened October 15, 1918. During the first quarter there were three resignations, two discharges, and three dismissals. As eight applicants were admitted from the waiting list, however, the present number of students is the same as that at the opening of the school—namely, twenty-three.

The probationers exhibited a very deep interest in the work and a desire to take advantage of every opportunity offered them. In the final summing-up of the work of each nurse at the end of her probation, many things were considered—theoretical and practical work, willingness, ability to adapt herself to circumstances, and general suitability. The fact that the entire class, with two exceptions, was able to complete the probation period successfully is illustrative of the earnestness displayed.

During the quarter just ended, instruction has been given in general nursing, beginning with the admission of the patient to the hospital and including pre-operative preparation and post-operative care, elementary operating room technic with preparation of solutions and sterilization, elementary anatomy, and physiology.

In materia medica the pupils have studied the most commonly used drugs, their methods of administration, and their physiological action. They have also been taught the symptoms and treatment of several diseases and have had thorough training in the care and feeding of infants.

The method of instruction has been that of weekly reviews of the ground covered during the week, with short quizzes from time to time. The results of the final examinations were very gratifying. The general health of the probationers, too, has shown much improvement during the short time the school has been in operation.

On February 1, 1919, the class of eighteen accepted pupil nurses received their caps, and we now have a class of eighteen capped nurses and five probationers.

Be careful of all supplies and use each article, whether it is linen, dressing, or only a duster, for just what it is intended.—Marie Robertson, R. N., in The Nurse.

DISPENSARIES AND THEIR SERVICE TO THE PUBLIC*

What They Are Doing to Aid the National Program—The Question of Clinics—Dispensary Abuse—Meeting the Shortage of Doctors and Funds

By MICHAEL M. DAVIS, JR., Associate Director Boston Dispensary, Boston

The subject of "dispensary abuse" has been discussed at previous sessions of this association, and at many medical meetings, such as those of the American Medical Association. "Dispensary abuse" in the sense in which it was brought before the association last year, meant the so-called abuse of dispensaries by patients who are believed able to pay for a private physician.

The question involved in such "dispensary abuse" is partly one of fact. How many dispensary patients, and what proportion of cases, present this particular situation —i. e., are too well off to be entitled to the privileges of a charitable dispensary? A number of studies and investigations have been made recently of the financial condition of dispensary patients and have been published in THE MODERN HOSPITAL and various medical journals. A few years ago over one hundred leading hospitals were circularized by the out-patient committee of this association to ascertain how large a problem "dispensary abuse" was, and the returns were printed in the "Proceedings" of the association in 1915 (page 421). Summarizing those figures, I may say that at that time practically no out-patient department of any hospital reported a larger percentage of patients rejected than 2 percent. At the large majority less than one half of one percent of patients were believed to be able to pay for a physician.

It is also to be borne in mind that the financial condition of the patient is not the only consideration. Financial condition, meaning simply his income, must be weighed in conjunction with personal responsibilities, the size of the family, if there is one, and the age, sex, and status of its members. It must also be weighed in conjunction with the nature of the disease and the cost of the medical treatment. A case with some minor ailment, requiring, perhaps, a single visit to the office of a general practitioner, is in a very different situation from a case of infectious syphilis or a case requiring difficult diagnostic procedures and surgical operation. The cost of private medical treatment in one case might be $2 and in the other case it might be $200. Thus three factors must be considered: (1) the cost of needed medical treatment; (2) the financial condition of the patient; and (3) his family responsibilities.

The out-patient committee of the association is a unit in believing that this problem of so-called "dispensary abuse" has been talked about rather more than it warrants. It has sometimes been made the subject of bitter discussion in medical meetings, to an extent which the facts, if properly investigated, would not substantiate. The committee also is aware that the so-called abuse of dispensaries by patients able to pay is not the only form of dispensary abuse which exists. The lack of adequate attention to a patient after admission to the dispensary is certainly a known form of abuse to which the administrators of hospitals and dispensaries should give particular attention. The American Hospital Association, composed as it is largely of administrators, should approach such a problem from this standpoint.

The out-patient committee believes that a well-administered dispensary or out-patient department will find the problem of "dispensary abuse" a practically negligible one. Good administration in this respect demands careful admitting of patients, with a trained person at the admission desk of the dispensary, who asks suitable questions, tactfully and wisely, of each new patient. Such admission systems are in vogue at a number of dispensaries and out-patient departments. There is nothing new about them, and every dispensary ought to have one. On behalf of the committee, I can not emphasize too strongly our feeling that the problem of dispensary abuse is to be solved, so far as it exists, by thorough dispensary administration, and that a trained person should admit the new cases, keeping proper records of them at the time they are admitted. The hospital or dispensary administration, I am sure we all agree, stands primarily for the interests of the patient. To determine which patients fairly need our medical care for the trouble with which they come, is our first-line responsibility; and to give that medical care, efficiently and completely, is our main-line responsibility, hardly more important. If we measure up to our double responsibility in these respects, the committee believes that the problem of "dispensary abuse" will be talked about very little—at least, in circles of hospital administrators.

One of the members of the committee, Dr. Donald B. Armstrong, of Framingham, Mass., has made a special study of dispensary and clinical work in the small city of approximately 20,000 population or so, and his individual and valuable report was published on page 218 of the March issue of THE MODERN HOSPITAL. The subject of the small city is of interest to many at this time.

The committee also wishes to call the attention of the association to certain developments of the past year. The state of Massachusetts has passed a law licensing all dispensaries and out-patient departments and placing the administration of the law in the hands of the State Department of Health. In New York there has been a license law for many years, placing the administration, however, under the State Board of Charities. The Massachusetts law regards the dispensary as a health organization rather than as a charitable organization, although, of course, it is both. Its operation is only just beginning; so it is too soon yet to state what its results will be. It is interesting, however, as an evidence of the growing importance of the dispensary in the public mind.

The post-card inquiry conducted by this committee has given us information upon two questions of special interest in connection with the war. The "Children's Year," of which we have already heard, has appealed to everyone here as an important national program. It has made a demand upon the country for larger facilities for medical examination and care of babies and young children. Many dispensaries or hospitals have been asked to cooperate in establishing or in developing their clinics for little ones. On counting our returns it was found that, out of 250 replies received to this question, just 100 institutions said they had children's or babies' clinics as parts of their dispensaries. I am sure we all hope the number will be much larger next year.

Venereal disease clinics, to which the discussion has already turned at this session, were particularly inquired into by your committee. Approximately five hundred institutions were asked whether they had venereal clinics or whether they had started them in response to the war program for fighting these diseases. Approximately three hundred institutions responded to one question. Half of these, or 150, declared that they had venereal disease

*Report of the Committee on Dispensary Work (Michael M. Davis, Jr., Boston; chairman, John E. Ransom, Chicago; Donald B. Armstrong, M.D., Framingham, Mass., and Robert J. Wilson, M.D., New York City), read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, N. J., Sept. 24-28, 1918.

clinics, and, of the 150, just half again, or 75, had *started* those clinics during the past year. In other words, approximately one quarter of the total number who responded had started new venereal disease clinics during the past year, and as many more had had them already. Those figures were mostly collected in April, 1918, and since that time many more clinics may have started. I know that in Massachusetts some six have been begun since April.

The major question which now faces the out-patient department and the dispensaries is shortage of medical staff on account of the war. Dispensary work is, in some respects, more closely bound up than hospital work with the care of the health of the general civilian population, because the dispensary reaches, in general, larger numbers than the hospital wards do, and includes minor as well as serious ailments. Therefore, it is very important to inquire as to the extent to which war conditions have diminished or have increased the need for dispensary work. From inquiries which we have made, we may say that some dispensaries report a distinct falling off in their attendance; others declare an increase. In one city two large dispensaries give exactly reverse reports—one, a considerable dropping off in number of patients, and the other, a full maintenance of attendance, even to the point of capacity in some departments. Without doubt some industrial communities which have grown largely during the war have an increased need for medical facilities. There is also little doubt that there are some communities which have not increased in population on account of the war, in which employment conditions and wages are better than usual, and in which the demand for dispensary service is thereby diminished. On the other hand, the taking into war service of many doctors and specialists has caused a grave shortage of medical facilities in some localities. We know of communities in which there is great need for dispensary clinics in certain specialties, although there is sufficient provision for general medical care.

On this point it is sometimes said that the increase in wages has been sufficient or more than sufficient to place our wage-earning population above the need of dispensary service. The studies made by the United States Bureau of Labor Statistics do not justify any such belief. They indicate that, in the larger industrial communities at least, the rise in the cost of living was, on the average, about 50 percent since the war, and that the average rise in wages has been some 15 percent less than that. This is not true, of course, in some particular trades. We all know of industries in which there has been an enormous increase in wages, but there are also many trades in which the rise of wages has been comparatively small and much less proportionately than the increase in cost of living. Where wages have not risen at least proportionately with the cost of living, a very heavy burden is placed upon a family in time of sickness—a burden which often should be met by the dispensary.

The great difficulty which every hospital feels in developing or even maintaining dispensary service now is the shortage of medical staffs. What can be done to face that practical situation? Is it practical to urge the establishment of dispensary work in the face of a shortage of medical service to maintain the clinics? The committee feels that the following two measures are of importance in this respect:

1. Encouraging such action as may wisely be taken by the Federal authorities to safeguard the staffs of the dispensaries as well as of the hospitals. In this respect we would point out that safeguarding dispensary staffs is much the same thing as safeguarding sufficient medical service for the civilian population in general.

2. Assisting dispensaries in providing medical service by the placing of clinics upon a pay instead of on a free basis. The subject of pay clinics will be discussed in detail this afternoon at the meeting of the Out-Patient Section, and it is our purpose here to refer only to certain general ways in which pay clinics can be established and in which they will be beneficial.

By a pay clinic we mean a clinic which is charging fees covering actually or approximately the cost of the service rendered, including some compensation financially to the medical staff. This afternoon, at the meeting of the Out-Patient Section, accounts of various existing and successful pay clinics will undoubtedly be presented. With a shortage of medical service, the pressure upon the remaining physicians to carry their civilian practice is increased, and it becomes more difficult than ever for them to give time without compensation to unpaid hospital work. The only practical remedy for such a situation is to furnish the physician with sufficient compensation for his out-patient work to make it practicable for him to give a sufficient time to do efficient clinical work. A pay clinic can thus secure adequate medical service, can meet its running expenses out of the fees charged the patients, and at the same time perform valuable public service. Such pay clinics are not incompatible with the usual charitable work of the same dispensary.

The pay clinic opens the way to the establishment of dispensaries by many hospitals which would not be in position financially to equip or maintain the clinics unless the running expenses could be assured. By means of pay clinics many hospitals can maintain or increase dispensary service during the war. It may also be pointed out that pay clinics are particularly successful and are generally most needed in the specialties, where they serve to meet the need I referred to a moment ago—i. e., the wartime shortage of doctors along special lines, the oculist, the throat-and-ear man, the orthopedist, the genito-urinary surgeon, etc. The pay clinic may well be conducted outside of working hours, in the late afternoon or evening, and thus be a further means of helping many wage-earners with families to get adequate medical care, without losing the wages which they and their families need. Not a few pay clinics have been successfully cooperating with business firms in their locality, who have been very glad to have the opportunity to send, or advise employees to go, to such clinics outside of working hours. Thus working time is not broken, wages are not lost, and the health of the employee is conserved.

Such opposition to pay clinics as might exist among certain elements in the medical profession will be much less than usual today. Some physicians, who in ordinary times might object to the establishment of dispensaries, or to pay clinics, will now feel less opposition or no opposition because, owing to the shortage of doctors, they already have more work than they can do.

The small community of from 20,000 to 50,000 population may be especially assisted by the establishment of a pay clinic at this juncture, when local conditions are such that a large general dispensary is not needed, but a pay clinic along certain lines of medicine and surgery would be of great benefit. It would also be within the means of any hospital, inasmuch as the cost would be met by the running of the clinic itself.

The out-patient committee, as such, thoroughly endorses, of course, the recommendations of the Out-Patient Section regarding the cooperation of the American Hospital Association with the venereal disease program of the Fed-

eral government. We believe that some letter or statement, sent to the hospitals of the country by the association, or by any committee suitably delegated, would be a desirable and helpful move on the part of this body. We urge the establishment in each community of such clinics for babies and children as may be demanded by the local committees working on the Children's Year. We urge consideration and study of the pay clinic as a means of supplementing the shortage of doctors and as a means of starting and maintaining needed dispensary clinics without increasing the financial burdens of the hospitals.

Because of the close relationship between the maintenance of dispensary staff and the maintenance of sufficient medical service for the civilian population as a whole, the members of this committee have been greatly interested in the report of the War Service Committee as to the best means of maintaining the medical care of the civilian population. The problem of keeping up hospital and dispensary staffs is part of the broader problem of maintaining sufficient medical service for the population as a whole. This committee hopes that the attitude and policy adopted by the office of the Surgeon-General will be such as will meet the needs of the civilian population for medical care, as well as the needs of the hospitals and dispensaries for medical staffs. We hope that both things will be considered together. Take the cases of doctors who are within the draft age, who are giving a certain amount of time to dispensary service, and who are conscientiously anxious to do their bit in the war. It seems to us that the situation of such men is often a pathetic one. Their patriotism sometimes causes them to enlist when their circumstances, their families, and the needs of the hospitals or dispensaries in which they are serving, make enlistment a serious matter. The responsibility of reaching the decision ought not to rest entirely with themselves. We trust that some way out may be suggested, as, for example, the commissioning of such men and their assignment to inactive lists during such period as the service which they are rendering to their hospitals and dispensaries makes them reasonably indispensable to their communities. Perhaps some measure of this sort may be suggested in a suitable manner through this association to the authorities at Washington.

In conclusion, we hope that every hospital will consider that it has a duty, in the present emergency, of maintaining every portion of its dispensary service which is needed by the community. Let not the mere immediate pressure of the medical staff lead to an early curtailment of service. First, study the needs of the community for such service. The experience during the past year of charitable organizations has seemed to indicate that the public is responding even more fully than usual to all appeals for money to meet real community needs. The interests which the public shows in health is increasing. I believe that the need of caring for the sick is a need to which the American public in almost any community will generously respond. If we know what we want and why the community needs it, we shall get it.

Under a recent ruling of the city of Sacramento, Cal., the public health department closes from Saturday noon until midnight, and this time is considered as a legal holiday. The only exception is made in the physicians' and surgeons' department, which consists of the city physician, the emergency surgeon, and the nurses of the Emergency Hospital, who are subject to call at any time of the day and night. There is but one emergency nurse, who is relieved for a few hours by a nurse doing welfare work and who works over twelve hours daily.

WAR-TIME PLANNING OF HOSPITALS*

Efficient Planning and Building Necessitates Time and Consideration—Congestion in Building Market After War Inevitable—Immediate Planning Urged

By OLIVER H. BARTINE, New York City, New York.

Into my hands recently came a rather attractive-looking sheet of large stamps, vaguely sketching, in color, huge buildings under construction, water-front developments and busy shipyards. Printed on these in big letters were slogans, such as "Plan Buildings Now," "The Early Planner Catches the Building Market," "Your Architect Should Plan Now." I have been considering whether this is mere propaganda wholly in the interest of the building fraternity, or a matter which really affects the interests of those who sooner or later expect to build. Especially have I in mind the planning and construction of hospital buildings.

No type of housing should be planned with more searching study and careful consideration than the hospital. Its efficiency for service, its economy of first cost and maintenance—in fact, its entire value as an instrument of service to the public—is determined by the way in which the building is planned and the thought and study that give the correct solution for the particular case involved. Failures in hospital planning have, in too many instances, been the result of superficial consideration of these problems, owing to the pressure that usually weighs on the architect, the consultant, and building committee, and their joint desire to get the plans finished and the building started in the shortest possible time. A problem of such great complexity as the modern hospital should be a study of many months by those engaged in the perfection of the plans. It should be a study given with a free mind and concentration of attention, and with the time made available for the reaping of the results of successful features of every hospital that has been previously built.

Visits should be made to numerous hospitals of character similar to the one to be built where the latest and best-studied ideas in planning and detail have been expressed; consultations without number should be held amongst those interested in the production of the plans; sketches should be made and destroyed and made again; each room, each part and each detail should be considered from every conceivable viewpoint; and each should be though out in view of every use to which it may be put, as regards its economy of space, its economy of material, and its fitness for its present purpose and possible future requirements.

Efficient planning and building can be accomplished only through systematic organization, and this involves much time. My views on the proper organization for hospital construction were presented in a paper on "Building the Hospital—Organization and Methods,"[1] in 1915, and I will not further enlarge on this subject at this time.

Too many hospitals are planned after they are under construction, very much to the detriment of the adequacy and economy of the entire plant. Have your planning done while you are planning, and not while you are building. Study the thousand and one problems when an improvement means the rubbing out of a few lines instead of when it involves the pulling down of a few walls.

Now, all this takes time and more time and assumes a freedom of preoccupation by the architect and his collaborators.

To get the best results in planning will be impossible

*Read at the Twentieth Annual Convention of the American Hospital Association, Atlantic City, September 24-28, 1918.

[1] THE MODERN HOSPITAL, February, 1915.

when the architects, engineers, and consultants are busy, as they surely will be after this war is finished. The time for thorough and efficient study is not when these men are busiest; and, from all indications, the declaration of peace will be the signal for literally thousands of building operations of all kinds all over this country to be suddenly released from their dormant condition. It is not exaggeration to say "thousands," for there is scarcely an architect who cannot tell you that anywhere from a dozen to a hundred building propositions of which he knows have been postponed until the war period is finished.

To produce the best possible hospital building, the ideal condition would be to get the most competent architect—and get him now—for at this time the client will get a measure of attention and a kind of service that he may never get again. Civil building has practically come to a standstill; architects who have government work are few and far between; and the architect now has the opportunity to plan leisurely and thoroughly without the diffusion of attention and confusion of interests that are entailed when he is trying to produce simultaneously a dozen different projects in the minimum time.

While the building of new hospital structures has been suspended, the constantly growing demand for hospital accommodation has not changed. The same condition exists in the case of school buildings, apartment and office buildings, and nearly every other class of building. Therefore, the undoubted rush and resultant congestion in building matters that is bound to occur directly after the war will mean, too, difficulty in starting new enterprises, for delay always goes with congestion. Fortunate then will be the man who has given eight or ten or even twelve months to the study of his planning problem, for he will be among the first starters when the word is finally given and will undoubtedly get his bids and contracts and his orders for materials placed before a surely glutted market will further boost prices of all building materials. At least he will know his needs and be better able to gauge the markets and act at the most propitious time and without the usual delays.

After the Civil War prices advanced and continued to rise for a number of years until the panic of 1873, when they were at the lowest ebb. Slight reductions in the cost of building materials may be expected to occur directly upon the close of the war, but these can only be of minor importance, because the factor of labor, the cost of which will not be reduced, is a large element of the cost of materials. These first slight reductions in costs will all be brought about in less time than that required for the preparation of plans and specifications for a building of any considerable size. A reasonable stability of prices may then be expected for a long time.

Mr. W. O. Ludlow, architect, tells me that his recent experience in the planning and supervising of the construction of three large hospitals has demonstrated that never before has care been so essential in the selection of building materials. Different materials may be used to accomplish a certain result. The recent and varying changes in the cost of all building materials lends the utmost importance to the exercise of judgment and the use of ample time in so planning the building as to economize in the use and cost of materials. Mr. D. D. Kimball, consulting engineer, emphasizes the fact that such care is especially important in the selection of the character and quantity of materials used in the mechanical equipment of hospitals, for the reason that such equipment is constructed entirely of metal, a material in which the advance in cost has been most marked. Time for the careful selection of material throughout is, therefore, of the utmost importance. Mr. W. T. D. Mynderse, architect, of Schnectady, N. Y., who has just completed the Mary McClellan Hospital at Cambridge, N. Y., which is the latest hospital in America, has expressed practically the same opinion as that of Mr. Ludlow and Mr. Kimball.

And labor costs—will they sag?

In conversation with a successful and well-known financier-philanthropist and social democrat a few days ago, I ventured the statement that labor would not come down in price after the war. "Yes," he said, "economic conditions will take care of that; but, aside from that, we who are interested in the welfare of the laboring man propose to see to it that they do not come down." I am quite convinced that my friend's judgment is correct; labor goes up but never comes down until a panic comes, which I presume we may expect when the European nations get on their feet again and begin to compete against our high-priced markets.

We have frequently heard criticism that the government or war hospitals should be planned and constructed differently, or in accordance with the personal idea of the individual. These remarks are usually based upon a very limited knowledge, hearsay, ignorance, or an isolated case, and not of the salient points or the situation as a whole. We all may differ somewhat as to the method of development and the types and plans, but in any vast and urgent undertaking some mistakes are certain to occur. Unless we have a full and complete knowledge of the situation, therefore, thoughtless criticisms do not help, and unless presented in the proper spirit and form, they are only a hindrance. The able hospital authorities in the Surgeon-General's office have had before them an undertaking of vast magnitude, and they have handled the situation ably and well. They, with the other associations, should receive only the highest praise for their rapid and remarkable achievements in providing hospitals and institutions in this country and abroad for the care of the sick and wounded soldiers and for their great consideration of the civil hospitals throughout the land.

The period directly following the war will be one of reconstruction in all parts of the world. The construction of new buildings and the reconstruction of old buildings will assume large proportions and will require the services of many able architects, engineers and builders. The architects, as well as others, have largely entered into the service of their country, and many have been forced to give up their profession. Upon the conclusion of the war, many of them will undoubtedly not again be found in the field of architecture. As in the case of other business men, much difficulty is going to be experienced in the reshaping of old lines of business. This, however, is not the case with the medical man, who, by serving his country in the medical service, will be well equipped, and perhaps better equipped than ever before, to continue his profession immediately after the war. It is to be regretted that the professional services of the architect have not been more generally utilized by the government in such a way as to make possible the continuance of his work in his professional line. The same may be said of the work of the consulting engineer, in his field as specialist in the mechanical equipment of buildings.

As I turn again to the artistic stamps lying on my desk, which advise in no uncertain fashion, "America, Plan Buildings Now," "From Coast to Coast Plan Buildings Now," and "Building Preparedness to Plan Now," I feel that I have quite made up my mind that, even though this may be propaganda to help those engaged in the building industries to earn their bread and butter, which, indeed, is a hard task in these hard times, the

wise man, the far-sighted man, and the man who believes to such an extent in preparedness that he actually prepares all of those who have the purpose to build, be it a hospital, a factory, or a church, will believe that there is real wisdom in the slogan "Plan Now."[1]

Abstract of Discussion

MR. E. F. STEVENS, Boston: I cannot let that paper go by without showing my profession's appreciation of the way in which Mr. Bartine has shown to the hospital people the great opportunities and the possibilities for them. Like Mr. Poquet's, my office has been depleted by the war, and I think that is probably true of the major part of the architects' offices. To plan now means a better opportunity for getting better results, and I think our profession owes Mr. Bartine a debt of gratitude for the way he has stood up for us.

DR. J. B. HOWLAND, Boston: I want to emphasize Mr. Stevens' point. Who of us haven't suddenly been called upon to build something in the hospital lien and regretted afterwards that we didn't give twice as much time or more to the planning?

MR. F. E. CHAPMAN, Cleveland: I think very few of us appreciate what it means to draw up a set of plans for a hospital. I say, from a good deal of bitter experience, that if you plan in haste you repent at leisure. You don't have to build your building now; you don't have to make any contracts; you can generally stand the architect off, but give him an opportunity to study your problem—and let me emphasize here that the architect should be consulted before you have made up your own mind as to what you want to do. He has a point of view that you can't possibly have, and you can't get a well coordinated functioning institution unless you get all of the benefits from all the minds that you possibly can.

DR. A. SEABROOK, Philadelphia: I don't believe there is a single hospital superintendent that will not echo just what has been said about building in haste and repenting at leisure. If a study could be made before and those details all worked out, certainly the work would be facilitated and economy and efficiency would be pusher ahead.

[1] After the completion of this paper I had occasion to communicate with the National Planning Bureau of Wilkesbarre, Pa., and received a letter from Mr. Edward H. Poggi, the manager, in which he volunteered facts of such vital importance as related to the reconstruction in the various countries after the war that I present the letter herewith:

"It will interest you to know that immediately before our entry into the World War there were only nine thousand forty-three architects in the entire United States, represented by less than three thousand units or firms.

"The architect has been afforded small consideration in war-time affairs, and we shall undoubtedly find, after the war, that many who followed the profession either have been disabled or killed, or have found other lines of endeavor.

"Our experience has shown that the training of a man in the profession requires a very considerable period and exhaustive study. We shall not be able to manufacture architects overnight, nor will four years of college training suffice.

"Personally, I am very proud of the profession and believe that architects as a class are men of high moral fiber and generally extremely patriotic. A great many have closed their offices and the public has heard no protest. Our own men of the office of Sturtevant and Poggi are all in the service and on the other side of the water. All were volunteers and enlisted before the draft, although I have the highest regard for the drafted men, some of whom have undergone surgical operations in order that they might be accepted.

"The N. P. B. has spent more than $7,000 in an endeavor to arouse the general public to the necessity of planning buildings at this time, and by that I mean that amount over and above all receipts, and it has been successful in arousing interest in thirty states. The effort will, I am sorry to say, receive less impetus in the future, as our assistants have gladly surrendered to war work, and the writer is awaiting his passports at this time for overseas service in the Y. M. C. A."

SOCIAL SERVICE AND DISPENSARY ADMISSION SERVICE*

Worker at Desk an Administrative Aid—Psychology of Individual Patients Essential to Successful Dispensary Treatment

By JANET THORNTON, Acting Head Worker, Social Service Department, Boston Dispensary.

Social service in hospitals has been adjudged of some value from two points of view, by two groups of appraisers. To administrators it has seemed an aid by virtue of its habit of individualizing the patient. Under its scrutiny he becomes not only a person with a disease, but one with a home and a job, and all that is fundamental to personality. To physicians, social service has proved an aid by virtue of an extension of the same habit; having individualized the patient, lifted him from the stream of patients, and placed him in his social setting, as it were, social service can contribute knowledge essential to planning treatment and influence helpful in carrying it on.

At the admission desk of a dispensary, a social worker is primarily valued as an administrative aid, designing, by individualization of each case, a deeper, more thorough handling of the problem of each. I shall try in a brief statement of routine to describe the way of using this aid, its cost, and what development appears ahead. Furthermore, I shall try to show how it connects with social service, described above as doctor's aid—viz., by extension of itself through the clinics, applying itself to every case (rather than to the few selected cases, as was the earlier method of social service) and thereby preparing a complete and correct basis from which those patients who need assistance to remove some obstacle to treatment may be selected from those able to carry on treatment unaided.

RELATIONSHIP TO THE ADMINISTRATION

Whether doctor, nurse, clerk or social worker has charge of the admitting, certain elementary functions have to be performed: first, all applicants must be registered accurately by name, age, address, name of parents, husband, wife or guardian, and other information sufficient to identify the individual among a multitude of others; second, the essential features of each one's malady must be grasped and he must be directed to the proper clinic; third, his eligibility to the care requested must be determined. For most institutions two broad considerations determine eligibility (any others, as residence, etc., being merely local). These two are previous treatment elsewhere, and financial status.

Previous Treatment.—Of this matter some acrimonious discussion has taken place and some rather hide-bound, harsh regulations have been practised; or rather, practice of them has been pretended. Each case in which previous treatment is reported must be considered on its own merits after noting all the circumstances, and the patient's ultimate welfare must be the deciding factor. If another doctor has recently studied the case, not only is repetition costly, but it delays treatment of the disease, and in the end the patient suffers. Recommending return to the former treatment is a good general rule, and, when an applicant can be made to understand that just reasoning and genuine consideration for him lies behind your recommendation, you have added something of value to his education. The trivial and unintelligent use by patients of excellent medical service is one of the most vexatious problems in dispensary administration. Yet

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because a man has gone once to a private physician, he need not be refused at a public institution. Whether rich or poor, he has the inalienable right, if dissatisfied, to ask the advice of other doctors.

Financial Status.—A similar detailed individual inquiry has to be made to learn the income of the applicant and the number to live on the income, at what employment he is usually engaged, what usual rate of wages he receives, how many children or others are dependent, how many contributing, and so on. And again, each doubtful case requires handling on its own merits. One who is to pass judgment, accepting or rejecting the applicant, will find he must glean knowledge from outside the walls of his hospital. He must know what it costs in his community for proper living, and what it costs for proper medical care. For instance, a single man or woman rooming alone lives at a much higher per capita rate than a member of a family, older children cost more than little children, etc. It will also prove helpful to have some background information about standard wages in the trades, industries and other employments of the community. In the last year wages have shifted in eccentric fashion. Unskilled laborers who could barely earn $15 a week are drawing $35. Even girls who formerly got $10 are drawing as much as $40. Sons and daughters have doubled their father's pay. Yet all the while it is obligatory to bear in mind that many wages have not been advanced at all, and relatively few commensurate with increase in prices. The cost of the essentials of life have, as everybody knows, advanced steadily, food 67 percent and clothing 75 percent in four years. The dollar has shrunk to 54 cents by comparison with four years ago. But, given a certain income, it is not very difficult to reckon how much of it can go for the purchase of medical services, or what priced services the sum allows—whether private office rates, pay clinic rates (where such exist), the nominal rates of charitable institutions, or a part of these rates; or if, as frequently happens, there is no margin but rather a deficit, the admitting officer may have to see that no charges at the hospital are made for treatment.

In practice I have found this matter of remitting the dispensary charges one of the most important and the most taxing parts of my task at the admission desk. The director has allowed me perfect liberty in the matter, and I have had the assistance of a dozen social workers and nurses in clinics, and yet we have never at any time more than half covered the need, so difficult to administer is the problem. In round figures the Boston Dispensary cares for some 4,300 individuals a month, with an average of over two visits per capita, and of these individuals, 550 have all or part of our fees remitted for some 1,500 grants of admission, medicine, x-rays, etc. The amount remitted averages somewhat over $300 a month. For five years the ratio of free to paying cases has varied little, about one to seven, or about 15 percent free. The families of widows, deserted mothers, disabled fathers, fathers with too low wages or too numerous children, remain relatively fixed quantities. The burden of attention to the 550 requiring remission would not be so oppressive if one had the comfort of having attended to all who needed the service; but we know that at least 500 more, who should not, are paying. For example: among the 4,300 individuals treated a month, 700 have come from families living on $10.50 to $12 a week, and of these 83 percent, or all but 120 persons, have paid all dispensary charges. One need not be a C. O. S. expert to realize that no family could live properly on that income in the autumn of 1917, when these figures were tallied. The Boston Dispensary has since then definitely ruled that remission of fees after the first admission is part of planning for efficient treatment, and the burden of detecting the need and recommending the remission rests on the clinic executive. Here I believe we are on the way to improvement, and I shall refer to the matter later in speaking of the relationship of the desk to social service.

Of the items under the financial status of patients that offer problems to the admitting officer, the remission of fees bulks largest perhaps, although that of deciding when an applicant can be referred to private practice takes more learning in medicine and arithmetic. No one can predict in a particular case the exact cost at private rates; yet one can know what similar or typical cases have cost. This information about an essential expenditure seems to me necessary for an admission officer to have and use. A few estimates for Boston of the relative charge for treatment in private offices, pay clinics, and free dispensaries may be suggestive.

1. Baby Feeding. Baby three months old supervised for thirteen months by children's specialist; during same period surgeon treats abscess of neck, and ear specialist, acute otitis media, both ears.	
Cost in private practice	$ 89.00
Cost in dispensary	4.20
No pay clinic.	
2. Diabetes (adult). Duration of treatment, one year.	
Cost in private practice (hospital, 4 weeks, $60, included)	178.00
Cost in pay clinic	84.50
Cost in dispensary	64.95
3. Carbuncle. Duration 38 days.	
Cost in private practice	25.00
Cost in pay clinic	8.00
Cost in dispensary	.95
4. Needle in hand (septic) x-ray, operation under gas.	
Cost in private practice	24.00
Cost in pay clinic	6.50
Cost in dispensary	2.45
5. Refraction and glasses.	
Cost in private practice	16.00
Cost in pay clinic	5.50
Cost in dispensary	4.35
6. Acute gonorrhea in men, average duration 175 days.	
Cost in private practice, with medicine	195.00
Cost in pay clinic with medicine	59.50
Cost in dispensary	48.25
7. Syphilis (adult) first year.	
Cost in private practice	260.00
Cost in pay clinic	52.00
Cost in dispensary	42.00

RELATIONSHIP TO SOCIAL SERVICE

You may ask why be at such pains to record a patient's situation in life, what trade the man follows, how many children the woman cares for, etc., when we know the brief desultory course of much dispensary work. Of the entire number of Boston Dispensary cases 40.5 percent come once only; 55 percent are ended in a week. The turn-over is 75 percent to 80 percent every quarter. To be sure, a fair proportion of this work is properly finished and closed from the out-patient point of view, even of the one-visit cases, whether they get a tooth filled or enter a hospital bed to die; and some may be properly dropped because of their insignificance; but it is conservative to say that one-third are lost before getting what they need. To the one who met these people at the entrance, beheld their eagerness for better health and encouraged their hope, the effect of wasting these thousands of human opportunities becomes intolerable. You doubt, as things are, why you should be at any pains to understand the people, and you determine to seek the causes of this wasted effort, for the hospital expends no less effort on the cases that fail than on those that succeed.

The waste of four or five minutes at the admitting desk to sketch a patient's environment is, of course, little beside the waste of the doctor's time and thought spent for careful diagnosis and spent in vain if the patient fails to return for treatment. From my post at the admitting desk I have watched for several years the

ineffectual coming and going of patients, especially the hopeful mood in which they first approach; also I have watched the meager returns from follow-up letters and visits. A multitude of instances have brought me to one conclusion as to the main reason why patients fail to carry out treatment. Human perversity may account for some failures; tedious delays at clinics and unsuitable clinic hours account for more; but the main reason is that the patients do not understand the plan of treatment, or what they are expected to do. The great failure on the part of the hospital is the failure to understand the psychology of the patient, *a failure which is not medical, but social.* The skill and ingenuity of the physician in establishing diagnosis and in directing proper treatment may be above reproach, yet, if the patient is not made a partner to the scheme, the skill, certainly in out-patient department service, is unavailing. Mechanical follow-up devices, such as appointment slips, post cards, form letters, even visits, have yielded very poor returns for the money outlay, at best, 35 percent returned, and 12 percent otherwise accounted for.

Of 1,534 appointments made in two recent months by the doctors in our Children's Department, only 672, or 44 percent, were kept. Eight hundred and forty-eight reminder post cards were sent to the patients who had not been heard from, and 244 of the new appointments were kept. Two hundred and fifty-three letters were then sent and ninety-two patients returned. Ninety-nine visits were made to the more serious cases still unaccounted for, and only twenty-four more returned. To summarize, 1200 notifications were sent, and only 360 children thereby recalled to a privilege they should have sought without urging. These, added to the number who kept the first appointment, make a total of 1,032, or 67 percent of cases successfully followed, while 33 percent of the whole remain as failure to the institution.

A better remedy is, I believe, being gradually developed, and is what I referred to at the beginning as an extension into clinics of the kind of service rendered patients at the admission desk. All the detailed personal information about the patient gathered at the admission desk is recorded at the top of the medical history card and sent to the clinic. After the usual diagnostic procedure, the doctor returns the card to the social worker with a more or less precise recommendation for the patient: "Do thus and so, and return to me on such a date." "Thus and so" may mean get laboratory reports, get teeth treated, stay in bed, and what not. From the data on social and economic affairs which the admission desk has furnished, the social worker has a footing for an intelligent interview with the patient as to how the doctor's plan can be carried out.

Take the case of a shop girl with acute gonorrhea. She works from eight to five for $12 a week, and lives alone in furnished lodgings. Outside of a possible moral difficulty, which for simplicity we here exclude,[1] the only obstacles to treatment are the patient's lack of understanding of its importance, and the embarrassment of getting leave from work twice a week.

If the social worker, acting as doctor's aid in this case, can give the girl a clear understanding of her own disease problem, if the girl is willing to take the treatment, and if she proves able, unaided, to manage the work adjustment so that the attendance is regular, the social worker may well decide that the patient does not need social service further.

Or, take another familiar situation—the sick baby in a family of small children where the mother can neither leave the children at home alone while she brings the baby to the doctor nor bring them all with her. If her mind is made to understand the treatment ordered, her willingness to carry out her part of it will nearly always follow. She may or may not be able unaided to accomplish this. If she is, her case requires no more from the social worker than advice and encouragement from time to time. Otherwise, the social worker proceeds in the usual way to render aid.

In a series of cases from a general adult medical clinic handled in this interpretive way by a social worker, two significant things were revealed. First, the social worker discovered that about half the patients had no clear notion of what the doctor expected of them, and, when it was explained to them and certain obstructions, such as dispensary charges beyond their means, were removed, they went cheerfully about to obey orders; second, the doctors found the aid more helpful than any administrative assistance previously rendered them. Numerically, the percentage of appointments kept was practically the same as that in the children's department after 1,200 notifications were sent forth (65 percent). Now, if, from those patients not keeping up their treatment, the really important cases could be selected, and a letter written to the patients, or a visit paid by the worker they had come to know, to discover and if possible remove the obstacles (be it discouragement, distrust, or financial difficulties), I believe the letter or the visitor would meet with welcome, because at the patient's first visit the ground was prepared for mutual understanding. I know a syphilis clinic where a procedure similar to the above has been for some years in operation with an average of 90 percent of cases kept under supervision—also a group of 193 infantile paralysis cases in an orthopedic clinic carried over twelve months with an average of 95 percent.

It is for this type of complete medical and social service that a social worker at the admission desk prepares; she prepares not only the formal notation on the record, but she prepares the mind of the patient to expect it. The Boston Dispensary has kept up the social experiment at its admission desk six years this autumn. It costs about $60 a month, which is roughly three cents a patient. Although social workers are hard to find nowadays, the social service department has agreed to continue for the year to supply two workers every morning for two hours each, for actual admitting, one of them to remain two hours longer to adjust the remissions of fees for prescriptions, anesthetics, etc., and assist patients in numerous interpretive ways still inadequately handled in clinics. The social service department assumes the duties with very definite purposes. First, it regards them as being an administrative task, which, in spite of obvious medical and clerical aspects, demands primarily social adaptation. Whether doctor, nurse, clerk, or social worker holds the admission desk, the work performed must be of a personal social character. Second, the social service department is willing to assume the duties because they offer very good educational opportunities to social workers in dealing with large numbers of people and with complex administrative affairs, and for acquiring a wide, even if superficial, acquaintance with medicine. Third, and of greatest weight, they are an outpost of value for the clinic development advocated, which some medical social workers believe is to be the next big general advance in their profession, as well as in dispensary administration.

[1] I would not seem to minimize the need in syphilis and genito-urinary departments of thought for the moral difficulties in which patients find themselves. Thought and help for them in the matter are assumed as an essential of a well-run department, even as knowledge of pathology or surgery; and like these, or like fresh wind and sunshine, it pervades the atmosphere enveloping each individual, but is not catalogued and tallied by cases.

HIGH-PRESSURE DRESSING STERILIZERS OR AUTOCLAVES

Principles of Sterilization Involved—Construction and Materials Used—Summaries of Steam Heat Penetration Tests Conducted at the University of Wisconsin

By S. GWYN SCANLAN, G. L. LARSON, and PAUL F. CLARK, M.D., Madison, Wis.

High-pressure dressing sterilizers, or autoclaves, for the sterilization of surgical dressings, in the modern type of apparatus, are constructed—built up—with an inner shell of seamless drawn copper or brass and with an outer copper cylinder, the cylinder fitted with a bronze back.

A heavy cast-bronze machined ring, or door collar, is inserted between the shell and cylinder at one end, and the shell and cylinder at this end riveted steam-tight to the right.

Below the cylinder is suspended, by means of brass fittings, a steam generator, the generator made from a seamless copper shell, fitted with a cast-bronze removable head.

The space between the shell and cylinder forms a steam jacket that entirely surrounds the inner shell (sterilizing chamber) except at one end.

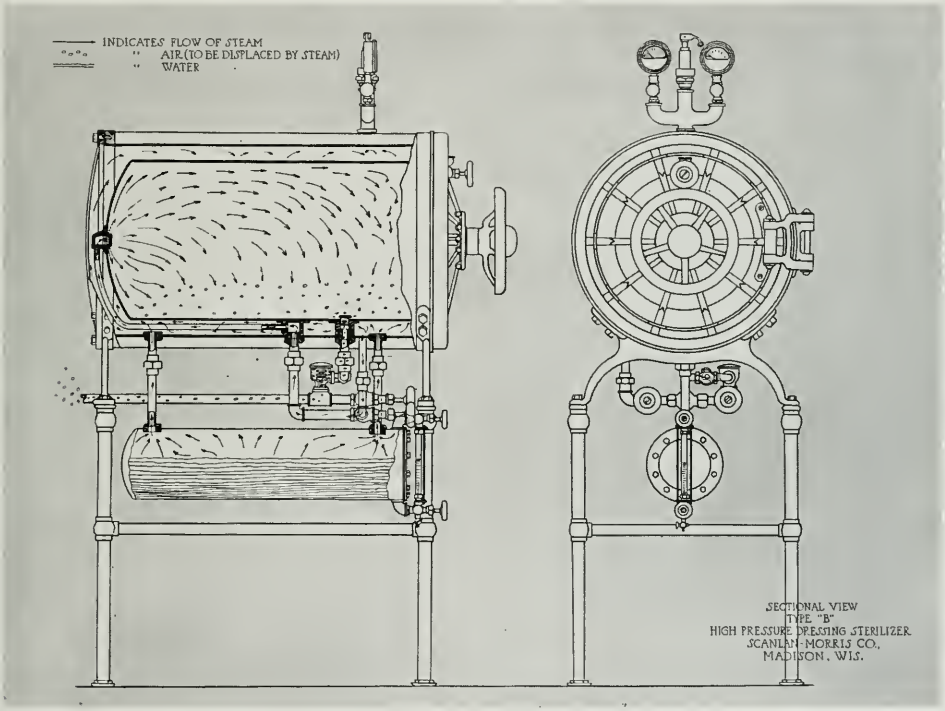
The sterilizer door is of cast bronze, with a machined face that presses up, when the door is closed, against a gasket in the door collar; the door swings on a heavy double hinge. Radial locking bars on the door, by means of a handwheel, are automatically thrown under the heavy door collar and permit of the sterilizer door being closed (locked) steam-tight.

The sterilizer is equipped with a compound gauge registering steam pressure in pounds and vacuum in inches obtained in the sterilizing chamber and with a steam gauge registering steam pressure in pounds obtained in the steam jacket and in the steam generator.

A nickel-plated brass jacket surrounds the body of the sterilizer; water gauge fittings, valves, etc., are finished in nickel, and the sterilizer is mounted on a white-enameled tubular steel stand.

Various heating mediums are employed to generate steam in the apparatus, such as high-pressure steam from an auxiliary boiler (the steam circulating through coils in the sterilizer), gas, electricity, etc.

The materials used in construction and the method of construction vary with various manufacturers; the principle of sterilization, however, with few exceptions, remains very much the same, consisting, as it does, of partial evacuation of the air in the sterilizing chamber obtained by means of a steam ejector, and of then subjecting the dressings in the sterilizing chamber to steam at a pressure of from 15 to 18 pounds for a period of from twenty to thirty minutes.



Sectional view high-pressure dressing sterilizer.

Not satisfied that the usual method of procedure followed in the sterilization of surgical dressings at all times and under all conditions (adverse conditions such as are found when the sterilizing chamber is crowded with dressings or an inexperienced nurse is operating the apparatus, etc.) insured absolute sterilization, we conducted, in the steam engineering department of the University of Wisconsin, an exhaustive series of tests covering steam pene-

tration and temperature in connection with the sterilization of surgical dressings placed in the sterilizing chamber of an autoclave. The tests and the records secured from the tests brought out well-defined, fully established scientific facts that in the designing of sterilizing apparatus heretofore had not been given sufficient consideration:

First, the drawing of a vacuum of from 10 to 15 inches only partially evacuated (removed) the air in the sterilizing chamber; the air remaining in the sterilizing chamber was sufficient to impede seriously the thorough penetration by steam of closely packed dressings. Second, the steam gauge recording the temperature and steam pressure in the sterilizing chamber, owing to the presence of air in this chamber, records incorrectly the steam pressure, and, consequently, records incorrectly the degrees of temperature obtained in the sterilizing chamber.

Dalton's law in physics states that when air and steam occupy the same vessel, the pressure in that vessel is equal to the partial pressure of steam and air, and that the temperature will correspond to the *partial pressure of the steam only.* Test No. C, as made by one of us (G. L. L.), shows conclusively that with a gauge reading of 18 pounds steam pressure, corresponding to a temperature of 254 F., with air in the sterilizing chamber, the temperature in the chamber became constant at 242.5 F. and that the maximum temperature of steam at 18 pounds pressure, 254 F., was not reached and never would be reached with 18 pounds registering on the steam gauge, *as long as the air in the chamber remained mixed with steam.* Test A, in which the sterilizing chamber was freed of air, showed the maximum temperature of steam at 18 pounds pressure, 254 F., quickly obtained and maintained.

Following are given a summary of steam heat penetration tests by one of us (G. L. L.) and a report (by P. F. C.) relative to the destruction of bacteria with steam employed as the sterilizing agent.

SUMMARY OF REPORT OF STEAM HEAT PENETRATION TESTS IN CONNECTION WITH A 16 BY 36-INCH AUTOCLAVE.

Object of Tests.—To determine heat penetration of steam into the interior of materials, bandages, cotton, etc., placed in the sterilizing chamber of an autoclave; and to study the effects produced by an automatic air and condensation ejector connected to the sterilizing chamber.

RESULTS, TEST A, STERILIZER EQUIPPED WITH AN AUTOMATIC AIR AND CONDENSATION EJECTOR.

Time (minutes)	Temperature (Fahrenheit)
0	70
5	231
10	250
17	253
18	254
20	254

RESULTS, TEST C, STERILIZER NOT EQUIPPED WITH THE AUTOMATIC AIR AND CONDENSATION EJECTOR.

Time (minutes)	Temperature (Fahrenheit)
0	70
5	210
10	240
17	242.5
18	242.5
20	242.5

Method of Procedure.—A 1-pound roll of cotton was used in making the tests. The wires of a thermo-couple were inserted in the autoclave chamber through a stuffing box in the door, and the roll of cotton was wrapped tightly around the junction of the thermo-couple in such manner as to preclude heat by conductivity of the wires reaching the junction of the thermo-couple; the roll of cotton was then placed in the autoclave and the door closed; a stop watch was started the instant steam was let into the autoclave chamber, and the readings of time and temperature were taken until the temperature became constant. The temperature readings were made with a millivoltmeter and a steam drum was used at the University of Wisconsin to calibrate the instrument to read in degrees Fahrenheit.

Test A was made with the sterilizer equipped with an automatic air and condensation ejector. Test C was made with a sterilizer not equipped with an automatic air and condensation release trap. In Test C a vacuum of 10 inches was secured in the sterilizing chamber before admitting steam to the chamber.

Conclusion.—These tests and a series of other tests conducted along similar lines of procedure show clearly the necessity of freeing the autoclave chamber of air. Air in the chamber not only retards penetration, but also prevents the temperature from rising to a maximum. Securing a partial vacuum (10 inches) in the autoclave chamber removes a portion of the air only. The automatic air condensation ejector, used in connection with Test A, works admirably, releasing and freeing automatically the autoclave chamber of air and condensation.

REPORT OF STERILIZATION TESTS

Object of the Test.—To determine, under ordinary working conditions, the efficiency of steam sterilization in an autoclave equipped with an automatic air and condensation ejector.

Method of Making Tests.—A pound roll of absorbent cotton was used, and into the center of this roll were introduced small gauze squares soaked respectively in cultures of *Bacillus coli, B. anthacis, B. subtilis, B. vulgatus,* and an unidentified spore-forming organism isolated from some contaminated Loeffler's blood serum. The first mentioned organism is a common inhabitant of the intestinal tract and a non-spore-former. All the other organisms are aerobic spore-forming organisms, *B. anthracis* being the causative agent in anthrax, and the others being non-pathogenic organisms found in dirt and very resistant to all germicidal agents. Cultures of the spore-former used were at least three days old, and, on microscopic examination, showed abundant spores, so they would offer marked resistance to the destructive influence of steam. After the infected squares of gauze had been introduced into the roll of cotton, the cotton was wound round the gauze squares as tightly as possible and tied in several places with heavy cord.

Twenty-two simultaneous tests were made with two autoclaves. An autoclave equipped with an automatic air and condensation ejector was one, and the other autoclave used in making the tests was a standard type of apparatus of another make.

Results of the Tests.—As a result of the experiments, it was found with the organisms and procedure followed that no growths were obtained from the infected gauze in the autoclave equipped with the automatic air and condensation ejector when a period of seven and one-half minutes or longer at 17 to 18 pounds pressure was used. In several tests, the other autoclave used showed less effective sterilization, the culture *B. subtilis,* a spore-former, exhibiting growth after twelve minutes of sterilization at 17 to 18 pounds pressure.

The experiments and time tests made showed conclusively the value of the automatic air and condensation ejector, eliminating automatically, at it does, the retarding effects of air mixing with the steam in the autoclave chamber.

When surgical dressings are prepared with an autoclave chamber closely packed with a variety of materials of different degrees of density, the factor of safety would be given due consideration by sterilizing at from 17 to 18 pounds pressure for a period of 20 to 30 mintues.

SOME LESSONS THE WAR HAS TAUGHT*

In Time of War Prepare for Peace—War Time Psychology Forced Us to Think of Men in Terms of Groups, But It Is the Individual Soul that Counts in Every Sphere, Including Hospitals

By WILLIAM O. LUDLOW, Architect, New York City

The war has taught its lessons and also brought its evils. And, as a result of the period of struggle, there exists today a serious menace, which, although it originated before the turmoil, has been given tremendous impetus by war methods and war psychology. It is a way of looking at things that for a time made Germany the strongest and most diabolical nation on earth. It is this—the conception of the man-appointed group as the vital entity, rather than the God-given individual human soul. May God protect America from this damning philosophy. Yet we are today in gravest peril of this very thing.

With increased density of population comes the tendency to treat humanity in the mass, or rather in masses, to think in terms of platoons, companies, and corps. Germany worked this to a finish—and it was her finish.

Even in democratic United States this tendency has been accelerated by the platoon-company-corps idea, not merely in the military, but running through all our activities. Speaking as an architect, I admit that the repeated handling of the planning problem for the care of the sick in groups tends to make the planner think in terms of groups and to deaden the fine appreciation of the comforts—yes, the rights—of that which was made in the image of the Deity, the individual soul.

I desire to point out here, by way of illustration, some ways in which I believe that we are failing lamentably in hospital design to pay decent respect to individuality. And I am going to include in the "we" the doctors and hospital managers, for, after all, we do about what they tell us.

I would mention then, the curious phenomenon that while we have striven for years to promote healing by proper environment, nearly all our effort has been to promote negative conditions—no noise, no smells, no ugliness. How much have we done in the way of pleasant sounds, agreeable odors, pleasure-giving appearance? I claim that these are often quite as effective as the doctor's medicine, and often even more effective. I speak from experience; the far-away sound of music in the early evening, and a dear, old familiar picture on the wall did more for me once, I am quite sure, than what I took from the spoon. And did I get these in a hospital? No, indeed! Absence of all sounds and blank, whitened sterility must reign there.

But I may be permitted to add a word as to some things in the physical aspect of the surroundings of the patient which, I believe, tend toward mental health, that handmaiden of bodily well-being.

I like to try to think, then, of the word "hospital" in its derivative sense. I would wish that it should not bring to mind a huge caravansary of austere aspect without and glaring white sterility within, a pile without cheer and without welcome. Gloom of aspect of walls inevitably breeds gloom of mind, and unbroken whitened sterility of walls and ceilings produces sterility of thought in the sick mind, which longs to be led out of itself by pleasurable impression from without. Why not think, then, in terms of "home for the sick?"

I am entirely convinced that we shall commonly see the hospital of the near future with tinted walls; with interesting but simple stencil on ceilings and at angles; with living plants here and there, and pictures, not necessarily framed in the conventional and dust-accumulating fashion but set flush with the walls and glassed over, arranged, perhaps, so that they may be changed occasionally; and even—shocking to the thought of tradition—plain, washable chintz hangings of quaint design and appropriate color to break the plainness over which the weary eye everlastingly roams.

Another illustration of our tendency to forget the individual and think in terms of the group has to do with the ward. I believe that the public ward idea, where the soul longing for a modicum of privacy (and what soul who has lived in a home does not?) the public ward, where such souls now lie exposed to the gaze of twenty others under the most trying circumstances—shall give way, whenever extreme stint is not imposed, to a degree of privacy.

The beast and the savage know not and care not for privacy. Modesty has to them no meaning. Forced publicity to human beings, by exposure to others at times when privacy is most desired, not only tends to break the fine web of refined feeling, but brings about a more or less acute mental anguish inimical to bodily health.

I believe that the small private room will in the future displace largely the public ward, or, in many instances, a low separating partition will be erected between beds. In the design of the New Cumberland Street City Hospital, now being erected in Brooklyn, we took a step in this direction, with considerable gain in floor space, by placing low partitions dividing the ward into groups of four beds, the beds arranged like a little ward of four on an axis normal to the main axis of the room. In another instance, we carried this still further, isolating, in this way, each bed. These low partitions are solid to such a height that the patients in the different groups can not see each other but through the glazed upper portion the nurse can survey the room. This arrangement has also the advantage that no patient faces the window light.

The objection to the private room is cost, but cost must be considered as relative to service rendered; otherwise, we would be housing our sick permanently, as the government is housing its sick temporarily. Viewed in this light, the actual cost may be less. One of our foremost hospital managers, now a colonel in the United States Army, has arrived at the conclusion, drawn from experience, that the shorter period of confinement of each patient in a private room makes the scheme one of actual economy.

And so I have claimed that architects have failed in some respects to recognize properly that the good of the group is in fidelity to the individual. I also claim that the present military necessity of thinking in terms of groups will greatly aggravate this insidious kind of failure.

But perhaps a more serious aspect of this matter is the change that war practice will, without the shadow of a doubt, eventually bring about in the medical profession. I have seen the thing begin to work in my own profession. I have seen a group of architects engaged in government work entirely changed in mental attitude toward the finest and most vital of the ethics and practice of our professional work by the driving hand of war necessity. They are trampling on the very elements that have in the past few decades lifted architecture in this country from an artisan's job to a high plane of efficiency and ethics.

I will ask you to consider, then, what is likely to be

*Condensed from article read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, N. J., Sept. 24-28, 1918.

the effect on our medical men and surgeons each of whom have been treating perhaps a hundred or more life-and-death cases each day.

The man whose methods and mind remain unchanged by this necessary wholesale business will be surely the superman. I do not say that such training will not do great things for many of your profession, but I do claim that the fine edge of feeling and consideration for the individual, which is real culture's best gift to civilization, will be blunted.

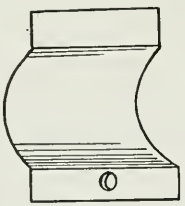
The war has advanced some things by a century, but years will be required to live down some other things; and one of these is the apparent rejection of that foundation stone of democracy—respect for the individual.

Some one has said that the finest thing the Christian religion has given to the world is this respect for the individual. Some of you believe, as I do, that Christianity is the greatest force the world has ever seen and that Christ was the greatest figure of all time. Napoleon studied his life for years, trying to find out wherein lay Christ's power over men, wherein was his secret of leadership. He found the secret but could not use it, for Napoleon, like the Kaiser, dealt in humanity in the mass.

The great Napoleon is now a hideous memory. The Kaiser and his damning philosophy are fast sinking into ignominious insignificance. Christ lives eternally, for He loved the individual.

To Prevent the Unsightly Pin Hole

A little bronze metal clip fastened to the door of each room will serve to hold messages concerning telephones, telegrams, and packages which have been delivered. It



is quite useful on doors of private rooms to hold such signs as "No Visitors," "In Fumes," etc. Colored cards may be used to indicate a special isolation. This will avoid the use of unsightly tacks, pins, and adhesive strips which so often disfigure the doors when signs are needed.

Almost as Good as a Dog

A woman rushed hurriedly into the Boarding-Out Department office of the New York Nursery and Child's Hospital.

"I want a baby!" she exclaimed, almost without greeting; "I've just got to have a baby!"

When the answers to a few questions had been duly noted, she was asked: "And why are you so anxious for a baby?"

She brightened at once: "You see," she explained, in a most confidential tone, "I have just lost my dog—and I was so fond of him! You don't know how fond a person does get of a dog—I didn't know what I could do without him, so I just thought that I would come and get a baby, and then I would not grieve so for Jack!"

But she went away very unhappy. "I know that I could be just as fond of a baby as I was of Jack!" she protested at the door.

HOSPITAL CARE FOR DISCHARGED SOLDIERS

Recent Enactment of Law by Congress Places Care of War Risk Insurance Cases in Hands of Public Health Service—How Appropriation of Ten Million Dollars Will Be Used

With the enactment by Congress of the law making provision for medical, surgical and sanatorium care for discharged sick and disabled soldiers, sailors and marines, the Public Health Service, to which this important work has been entrusted, begins a marked expansion of its hospital activities. Already, with demobilization just begun, the Treasury Department has under its care nearly two thousand beneficiaries of the War Risk Insurance. Within a very short time hospital and sanatorium care will have to be provided for a considerable proportion of the 24,500 soldiers, sailors, and marines discharged from active military and naval service because of tuberculosis, and for approximately 50,000 cases of psychoneurosis, epilepsy, and other nervous and mental disorders reported among the military forces up to December 1, 1918.

The law just enacted by Congress carries total appropriations of over $10,000,000. Of this sum, approximately $3,000,000 will be used to take over the hospital built by Mr. Hines in Chicago, and to equip and adapt it for use by the Public Health Service.

The sum of $1,500,000 is set aside to establish a tuberculosis sanatorium at Dawson Springs, Kentucky. Nearly $200,000 will be available for enlarging the Marine Hospital at Stapleton, N. Y. Over half a million dollars is provided for the construction of a hospital in the District of Columbia on Government-owned land; and $900,000 is reserved for the construction of a complete hospital unit at Norfolk, Va.

The law sets aside $1,500,000 to be held as an emergency fund to purchase additional lands and buildings in localities to be authorized by the Secretary of the Treasury.

In order to conduct the hospitals for the rest of the present fiscal year $785,000 is provided.

In placing the care of these War Risk Insurance cases in the hands of the Public Health Service, Congress evidently saw the advantage of thus unifying Federal hospital activities. The Public Health Service already provides hospital care for merchant seamen, employees of the Mississippi River Commission, for the personnel of the United States Coast Guard Service, the United States Lighthouse Service, and United States Coast and Geodetic Survey. In addition to this, in recent years it has cared for injured civilian employees of the Federal Government under the Federal Compensation Act.

The large additional work which is thus thrown on the Public Health Service by these War Risk Insurance cases led the Service to provide for a considerable increase in personnel. At many of the established marine hospitals, additional attending and consulting physicians and surgeons are being appointed, the appointees being commissioned as officers in the Reserve of the Public Health Service. Similar commissions are being offered to high-grade specialists in tuberculosis, orthopedic surgery, psychiatry, and the like.

In order to reduce the cost of new hospital construction to a minimum, Congress provided that the hospitals at certain army camps be turned over to the Public Health Service. These include Camp Cody (N. M.), Camp Hancock (Ga.), Camp Joseph E. Johnson (Fla.), Camp Beauregard (La.), Camp Logan (Tex.), Camp Fremont (Cal.), and the nitrate plant at Perryville, Md.

The sum of $750,000 is provided to remodel and adapt these hospitals to the uses of the Public Health Service.

Altogether it is apparent that Congress has carefully considered and met this phase of its responsibility toward those discharged from military and naval service.

KEEPING THE PATIENT UNDER TREATMENT*

Most Important Phase of Work of Clinics—Follow-up Through Social Service Workers Proves Effective —"Strong Arm" Methods Sometimes Necessary

Under Dr. J. G. Wilson as chairman, the following interesting discussion formed part of the meeting of the out-patient section, and many superintendents struggling with this vexatious problem in their clinics will be glad to learn how it has been met by others.

MR. J. J. WEBER, Boston: The Boston Dispensary for a number of years has maintained clinics which did good work in the treatment of syphilis and gonorrhea, but with the beginning of the war and the organization of the national campaign for the control of venereal disease in Massachusetts, working through the state department of health, we found that it was exceedingly necessary and desirable for us to reorganize all our venereal disease work. Formerly we had three separate clinics where these diseases were treated—syphilis in the dermatological, and gonorrhea in the genito-urinary and gonorrheal clinics. Now, for the purpose of efficiency we decided to organize those three clinics into a single department of the dispensary, and in addition to that we organized an advisory committee, whose function it was to establish the broad principles under which that department should be administered. That advisory committee consisted of the chiefs of the three clinics, the director of the dispensary, and a representative of the state department of health. Our clinics are held both in the morning and in the evening; the morning clinics are free and the evening clinics are pay clinics. The attendance averages a little over 300 per clinic day. During the past year in the morning in the syphilis clinic, we treated about 8,000 patients, in the evening clinic, 9,000; in the morning we treated about 10,000 male genito-urinary cases, and 15,000 in the evening, and about 3,000 women genito-urinary cases. Recently at the earnest solicitation of the state department of health we have opened up an evening gynecological clinic, which, of course, will treat many of the female genito-urinary cases. This work is done in cooperation with the national program for the control of venereal disease, and we are getting our material very largely through the activities of the Protective Workers of the War Camp Community Service and through such advertising as we secure through the announcements made by the lecturers who are sent by the war department to the various industrial plants where women are employed, and to the various department stores. In addition to this, we are doing some advertising in the public press and are also sending notices around to the various philanthropic and charitable institutions. We get a small subsidy from the state department of health of a thousand dollars, which we shall apply to this new clinic which was recently established. This is a subsidy that is given to some fourteen or fifteen new clinics that have been established throughout the state of Massachusetts; this state is manufacturing its own arsphenamine now in fairly large quantities and we are getting that and giving it free to acutely infectious cases.

We have a follow-up system which has proved of the greatest value in securing continuous treatment for our patients. We have a visible index file, a visible index follow-up system, and when the record of the individual patient is brought to the clinic by the page and is prepared for the doctor, the clinical clerk takes his visible index off the file and attaches it to the record, and after the doctor has seen the patient he notes on this visible card the next date upon which he wishes the patient to return; at the conclusion of the clinic these cards are filed back under the visible file under the date indicated by the doctor, so that we have a check in that way upon whether or not the patient comes to the clinic; if, after a given period of time, depending upon the seriousness and acuteness of the condition, the patient fails to come in, then we send him a series of follow-up letters, and ultimately, if those do not avail, a social worker tries to see him. Then this follow-up system also enables us to carry out our duty with regard to reporting the incorrigible cases to the state department of health. If after six weeks' time a patient who has formerly been reported to the state department of health under law by number fails to put in an appearance, we are obliged to report him by name; the state department then sends that name with the address of the patient to the local department of health, wherever the man may happen to be, and it is their function to bring him back under treatment.

MR J. R. HOWARD, New York: What individual keeps track of all the cases that haven't shown up, what their physical condition is, when to send for them, and how?

MR. WEBER: The clinical executive works in very close cooperation with the physician in charge of the clinic, and by going over the cards very frequently they are able to decide as to which cases shall be called back and which may be given a little longer time before they appear.

DR. A. R. WARNER, Cleveland: In our clinic every case is given a follow-up card on the visible index system, which has a little place to check the instructions of the physician about six months in advance. That man is to return in one day, one week, one month, or whatever it may be. The card is then put on the corresponding rod, of which there is one for every day in the month, and as the patients come in their cards are taken off and they go to the clinic with their history and get a new date checked on them. The cards of those who didn't come in that day are left on that file and our attention is thereby called to the fact that the patient did not come; then a day or two of grace may be given or may not, or a postal card may be sent that very day saying:. "Your engagement with the physician on this day has not been fulfilled. Please report at once." If that postal card does not receive attention, sometimes a letter is sent making the thing plain, and sometimes a social worker visits the patient and makes it plainer.

The development of so-called "venereal disease" clinics, particularly syphilis clinics, has been rapid. The change in public opinion has come rapidly, and we can get away with things now that would have been more or less difficult a short time ago. Just for example, when a case of syphilis comes into the clinic, the patient is told what is the matter with him; that the thing for him to do is to come for regular treatment; and that it may take a long time. The chances are that the question of salvarsan is put up to him the first day—and there are very few patients who have gone through that department without getting their little dose of salvarsan when needed, whether they paid for it or not. If they are refractory and

*Discussion before the Out-Patient Section of the American Hospital Association at its Twentieth Annual Convention, Atlantic City, N. J., Sept. 24-28, 1918.

say they don't believe that that is the trouble, or that they won't be treated, and that they will go to some doctor outside, they are asked to state who that doctor shall be. If they give a proper reference, then we report to that doctor and see that they come. If they don't come or if they refuse to have treatment, the one thing left for us to do is to call up the police. Such a patient is a contagious person and we will not have him loose on the streets of Cleveland untreated. If he will take the salvarsan on the spot we will let him go home; if he won't he will go in the patrol wagon—there is no other way. Now, that may be hard. It is once in a while, but I believe that is the only way we shall ever eradicate that disease. There are many cases that will take their salvarsan twice, and then they think they are cured. Some of them think they are cured the first time and fail to report for treatment. They may pay no attention to our card or to the social service nurse's visit, but usually they do because they are simply told that they have a contagious disease, which is not permitted in Cleveland to be loose, and that, therefore, they will hear from us. If it is acute there is likely to be a patrol; if it is not acute the sanitary officer goes to their home with a red sign that reads, "Syphilis within," and the patients are shown that card. The health officer told me not long ago that the longest any card has remained on any house in Cleveland was thirty minutes. In that time several people go by, leer at the sign, and begin to edge away. That will bring the most refractory to time. When they promise to be good, the card is taken down. If they comply with that promise, and they usually do, it stays down, but if they fail to appear at the place where they say they are going for treatment, then it is done all over again. Many of the girls are taken at once in patrols to the City Hospital and there retained for about a week, and in that week they get from two to three doses of salvarsan and are fairly non-contagious at the end of that time. Many a man goes to the City Hospital the same way. If it is an acute case and he looks like a fellow who is going to make trouble and doesn't promise to be good to the satisfaction of the patrolman, who is always a sanitary patrolman, then he goes in the wagon to the City Hospital under arrest. Some of them at first went through the perfunctory performance of going down to the court and getting a ten-day sentence and were then ordered to the City Hospital. Even that is not done any more. They are just taken over there, kept a week, given salvarsan, and let out with the understanding that they are to come to this dispensary or that dispensary for treatment and to keep under treatment.

I do not believe that any method short of the strong-arm method will ever accomplish much in syphilis cases. It is the state law that gives Ohio cities the fundamental right to take action. There are certain things which are not covered in the state laws which the cities are supposed to regulate for themselves, but the cities have authority to prescribe detail and additions only. The fundamental state law applies.

Dr. Stewart Hamilton, Detroit: In handling venereal disease in Michigan the state board of health have a similar arrangement, and in our hospital we have also a follow-up system similar to that of Lakeside. The state board of health confines their patients to a hospital. The hospital has given over one floor to these cases, and we have fifty patients. Most of our cases are from all over the state. Once a case is discovered to be syphilis, the patient is confined to the hospital for quite a long period—not for one week; no patient gets out in less than three or four weeks, and some stay a good deal longer. The requirements of the board of health are that they should have five consecutive negative smears. That is really a safeguard. It is hardly true that you can clear anybody up in five. We have had patients show five when they have had to stay in the hospital for some other reason, and they became positive later, but this method insures a little better, I think, than the week's treatment. Patients may stay in their homes in quarantine with a large red quarantine sign. Patients who are confined to their houses and who are under the care of private physicians would be released in one or two days after showing a negative smear, but they have the privilege of going to the hospital and being cared for by the state, or of staying in their own homes and paying for their own care; they usually come to the hospital, but some of them are "slippers" and we do occasionally have a little trouble. Recently we had an incident where a patient choked another one and had to be arrested; she thought that she would be released on paying a fine and get out, but it was found out and the health board picked her up. A health officer said that in picking women up and examining them, it was found that about 50 percent of the first hundred were infected; then, as the thing went on, out of the next hundred picked up, about 25 percent were found; and in the last group only 4 percent were found to be infected. In Detroit we are picking up the men; we are doing it very quietly, but it is being noised around and it is keeping them off the streets at night and doing a great deal of good in that way.

A Member: I would like to ask Dr. Warner if these patients who are followed up so vigorously come voluntarily the first time to your clinic?

Dr. Warner: Most of them, yes. Some have been in the City Hospital because they have been in trouble, been arrested for vagrancy or for street walking and have just been picked up, as you say, examined, and found to have syphilis; they go to the hospital for the regulation period, which isn't fixed at one week. That's a minimum, but they are trying to crowd it down to one week, though that isn't long enough. After that they are sent down to us, and I presume they are becoming quite a considerable portion of our patients, though at first they all came to us voluntarily.

A Member: Do you find these vigorous methods deter people coming voluntarily?

Dr. Warner: Our clinic has doubled every year since it began.

Dr. J. G. Wilson, Chairman: Almost every speaker here has approached the subject through the terror that is going to be impressed upon the prospective patient by the legal side of his case; that is, he is terrorized into coming into the clinic. I believe in that. I think that every community should have this power, but I don't think that it should ever be exerted until the very last thing. All of us who have had practical experience with the handling of these clinics know that the class of patients whom it is most important to treat, from a public health standpoint, must be brought in through the power of the law. After they are in as patients, they are all patients alike. They are all sick to be treated as such, but it seems to me that the hospital should extend to these unfortunate individuals every possibility of being treated for a disease which is considered and is loathsome, without its being known to anybody except the one being treated and the one giving the treatment. That is, these patients should be safeguarded from coming in contact with others, and, if possible, clinics should be held at such times of the day that patients can reach the point the easiest way and with the least possible amount of publicity.

HOSPITAL, MEDICAL AND SPECIAL MEETINGS

CONFERENCES ON HOSPITAL STANDARDIZATION

Four Recent Meetings Attract Large Attendance—Interest and Enthusiasm Displayed—Concentration on Three Problems of Hospital Administration

The conferences on hospital standardization being held under the auspices of the American College of Surgeons are a program of cooperation with hospital superintendents and the medical profession; they also reach the public through commercial clubs and public meetings, as well as through those directly concerned with hospitals. The reports which are coming in about the work indicate an enthusiasm which means accomplishment.

During the last part of February and early in March conferences were held in St. Louis, Memphis, New Orleans, and Fort Worth. At the St. Louis meeting, held on February 19, more than two hundred hospital people and physicians and surgeons came from eastern Missouri and southern Illinois. Dr. Harvey J. Mudd presided.

The conferences at Memphis covered Tennessee and Arkansas. The meetings were held in the assembly hall of the Chamber of Commerce and were presided over by Dr. John M. Maury, chairman of the Committee on Standards.

The New Orleans meeting was one of the most notable hospital gatherings ever held. Dr. Frederick W. Parham, chairman of the Committee on Standards for Louisiana, presided. About six hundred of the most prominent people in Louisiana were in attendance, including the Archbishop of New Orleans, who made a short and enthusiastic talk about the interest of the Catholic Church in better hospitals. Dr. Frederick L. Hoffman, vice-president of the Prudential Life Insurance Company, made a forceful talk upon the value of hospital data to the profession.

At the Fort Worth meeting there were visitors from as far away as Kansas City and Sedalia, Missouri, Arizona, and New Mexico, and many from remote parts of Texas, all deeply concerned about hospital problems.

The speakers at all the meetings, representing the American College of Surgeons, were Dr. John G. Bowman, director of the college; Dr. John A. Hornsby, formerly editor of THE MODERN HOSPITAL and just discharged from the United States Army, and Charles B. Moulinier, S. J., president of the Catholic Hospital Association. Local men and women took part in all the programs, including the Fellows of the American College of Surgeons, hospital superintendents, trustees, members of associations of commerce, and public officials.

At all the meetings real enthusiasm prevailed. There seemed to be no question in the mind of anybody as to whether improvements in hospital conditions were desirable and attainable; the only questions related to details. The college clearly emphasized its aim to concentrate on three problems of hospital administration: (1) case records; (2) good laboratory facilities; and (3) organization of medical men with a view to fixing responsibility in the right care of patients. If these three factors in good hospital service are attained, the college states, all other factors of good hospital service will naturally follow.

The success of these meetings is to be followed with other meetings throughout this country and Canada.

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AN INTERNATIONAL CONFERENCE ON REHABILITATION OF THE DISABLED

A Conference Covering All Phases of Vocational Re-Education and Employment of the Disabled

A conference on rehabilitation of the disabled was held in New York March 18 to 22 under the auspices of the Red Cross Institute for Disabled Men and the Red Cross Institute for the Blind. This issue of THE MODERN HOSPITAL goes to press too early to permit us to give a report of the conference, but, from advance announcements, we are able to say that it was undoubtedly a most important meeting. Some of the best-known men in the field of rehabilitation both at home and abroad were delegates. The French delegation included Dr. Maurice Bourillon, president of the Permanent Inter-allied Committee on War Cripples and director of the French National Institute for Crippled Soldiers in Paris; Edmond Dronsart, director of the School of Re-education for Maimed Soldiers, at Montpellier, France, and Lieutenant Henri Gourdon. The Belgian delegate was L. Alleman, education director of the Belgian Military Institute for War Cripples at Port Villez. Major Robert Mitchell, director of technical training for the British Ministry of Pensions, headed the British delegates, and was accompanied by Major Francis Meynell, of the Ministry of Labor; Captain Sharpe of the Shepherd's Bush Military Orthopedic Hospital, London, and Mrs. Ethel Wood, secretary of the London Local War Pensions Committee. From Canada came a full delegation led by Sir James Lougheed, Minister of the Department of Soldiers' Civil Re-establishment, and including F. Gerald Robinson, Deputy Minister, and W. E. Segsworth, Director of Vocational Training.

The office of the Surgeon-General of the Army was represented by Colonel Frank Billings and members of the reconstruction staff, and Colonel E. G. Brackett and members of the orthopedic staff.

The Federal Board for Vocational Education was represented by Dr. C. A. Prosser, Mr. James P. Munroe, Mr. Arthur E. Holder, and a number of members of the central office and district office staff.

The Bureau of War Risk Insurance was represented by Colonel E. Banks, chief medical advisor; Captain H. C. Houlihan, chief of compensation and claims, and members of their staffs.

The American Red Cross was represented by Colonel C. H. Connor, assistant director-general of military relief, and also by Curtis E. Lakeman, director of after-care, Department of Civilian Relief, and other national and divisional officials.

The program included the National Programs of Rehabilitation of France, Belgium, Italy, Great Britain, Canada, Australia, New Zealand and India; the American Program of Vocational Rehabilitation, Physical Reconstruction, and Functional Restoration; Bedside and Ward Occupations; Artificial Limbs and Other Prosthetic Appliances; Industrial Surveys of Employment Opportunities for the Handicapped; Methods of Training; and Relation of Pension, Compensation, or other Allowances to Rehabilitation.

Next month we hope to be able to give fuller information on the subject of this most important meeting.

DEPARTMENT OF DIETETICS

Conducted by LULU GRAVES

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Home Economics Building, Cornell University, Ithaca, N. Y.

ONCE MORE—THE BANANA

Its Value As a Food—Distinguishing Characteristics of Ripe Banana—Various Recipes for Its Use

Mention has been made more than once in these columns of the value of the banana as a food.

Though canned fruits are desirable and we would in no sense speak disparagingly of them, either of the home or commercially canned products, yet at this season of the year we begin to anticipate the early fresh fruits. The best season for orange and grapefruit has passed, apples at this time are not usually so appetizing as they are in the autumn and winter, but bananas are just as acceptable now as they are at any part of the year.

Fig. 1. The border of banana gives a most appetizing appearance to the molded cereal.

A thoroughly ripened banana has a characteristic flavor and odor. The starch has been changed to a more easily digested form, so that the banana when ripe has neither the same flavor or composition as it has when green. Brown spots on the skin indicate the stage of ripeness. If the skin is unbroken and decay has not begun, a banana with a brown skin is preferable, from the standpoint of a food material, to the yellow or greenish yellow one which the majority of people buy. Dark spots on the pulp may be due to bruises, or they may mean decay. If there are no signs of decomposition, the dark spots are not objectionable.

If the unripe banana is baked, it is as wholesome as the thoroughly ripened one eaten raw. Frequent mention is made of the difficulty in digesting bananas. In the majority of instances, if the fruit is thoroughly ripe or if it is cooked, there will be no difficulty in digestion. Often the difficulty is simply due to lack of thorough mastication. The fruit is soft and has a tendency to slip down the throat easily, and for that reason it is apt not to be well masticated.

The many ways in which a banana may be served makes it adaptable for any or all of the three meals. As a fruit it may be served alone or in combination with other fruits in the form of a salad or dessert; when cooked, it may be served in the form of a vegetable; as a part of the breakfast menu, it may be served simply with salt, with cream and sugar, with cereal or with fruit juice.

The following recipes are but a suggestion of the ways in which this variety of serving may be accomplished:

BANANA WITH CEREAL

1 cup hot breakfast cereal	1 cup cold, molded cereal or dry, flaked cereal
1 baked or boiled banana	1 thin-sliced or pulped raw banana
Milk or cream	Cream or milk
Sugar	Sugar
Salt; Or	

When using hot cereal, make a border of it around a deep dish. In the center, or "well," place the hot banana pulp, add a sprinkling of salt, and serve with or without sugar, milk or cream. With dry cereal, cut the raw banana fine or pulp it and place over the top of the cereal. When a molded cereal is used (Fig. 1), make a border of uncooked banana, pulp or minced, and serve as usual.

BREAKFAST BANANA WITH FRUIT JUICE

½ raw banana	4 tablespoons mild fruit juice
Salt	Sugar (or omit)

Cut the banana very fine, sprinkle with salt and sugar, place in a small serving dish, and pour over it the fruit juice. Diluted lemon juice may be substituted for other fruit juice. If served hot, heat together in saucepan till the juice boils.

MACAROON BANANA

1 banana, cooked or uncooked	Whipped cream
3 or 4 macaroons	½ cup milk
White of egg or milk	1 saltspoon salt

Peel and place the banana in a baking dish with one-half cup milk, cover, and cook till tender. Drain, salt, roll in the crushed macaroons and serve with whipped cream (Fig. 2). Or, use an uncooked, very ripe banana, score lightly, dip in milk or white of egg (slightly beaten), roll in the crumbs and serve.

BANANA AND APPLE PUDDING

1 banana	2 tablespoons water
1 apple	Pinch salt
1 teaspoon butter	2 rolled crackers

Slice the fruit, mix with the water and half the cracker crumbs, and place in a baking dish. Mix sugar, butter and the rest of the cracker and spread over the mixture as shown in Fig. 3. Bake till done and browned. Serve with milk.

* * * *

THE IMPORTANCE OF THE FOOD QUESTION

Developments of the War Period Have Made It a Subject of Conversation on the Tip of Every Tongue—Profuse Discussion Reveals a Diversity of Opinion

"Since the beginning of the war" subjects pertaining to food values, nutritive requirements, and all branches and ramifications of dietaries have been discussed from numerous and widely differing standpoints. We believe it could be said, without fear of contradiction, that everyone who eats and is capable of conversing on any subject, has discussed food from some standpoint—from the standpoint of price, if from no other—many times during this period. All of which means that a number of people have a more intelligent understanding of dietetics than

ever before. The subjects of dietetics and dietotherapy have received valuable contributions from food analysts and nutrition experts, which have often been of a plain, practical nature as well as of a scientific. Sometimes we who are of the "common people" become confused at the diversity of opinion of these authorities, but it is always worth while to hear both sides of a discussion.

When such eminent authorities as Osborne, Mendel, and McCollum do not always agree we are not surprised to find others who do not agree with them. The following are extracts from an article by Dr. Hugh Payne Greeley of Madison, Wisconsin, in which he voices an opinion differing greatly from that of Professor Osborne. The article was published in the December 19, 1918, issue of the *Boston Medical and Surgical Journal.*

* * * *

HABIT VERSUS INSTINCT IN EATING*

Diet Must Be Supervised and Regulated by Will Power and Self-Control—Pure Races Under Natural Conditions May Depend on Instinct, But Artificialities of Civilization Make Guidance in the Choice of Aliment a Necessity

By HUGH PAYNE GREELEY, M.D., Madison, Wis.

The fact that the recent article by Professor Osborne published in the *Atlantic Monthly* for September, entitled "What and How Much Should We Eat?" can pass unchallenged by the practicing physicians of the country indicates to me the great necessity for studying the practical application of the science of nutrition as it has been developed in our great nutrition laboratories.

Having for many years been a student of metabolism in its practical bearing on the treatment of disease, I read the above-mentioned article with great interest. Such an eminent authority as Dr. Osborne I would not wish to dispute, but I feel that a fuller discussion of certain statements would be helpful.

Professor Osborne makes this statement: "It has been generally held that overeating, except within narrow bounds, is impossible, for the subject will either grow fat, which, of course, has its limits, or will feel badly and cease to eat in excess until a normal condition is established"; and later in the article, "Can a man overeat habitually without either growing fat or dyspeptic?" and again, "If surplus food above that needed for the daily tasks of life can be disposed of by increased rate of metabolism, can such a stimulation of metabolism be frequently endured without sensations of discomfort?"

In the practice of medicine, the fat man who from instinct ceases to eat until a normal condition is established does not exist. His instinct must be aided by strong willpower and great self-control, and the establishment of a normal condition seldom, if ever, takes place from a reconstruction of diet alone. Another class of people certainly can habitually overeat without getting fat or feeling badly, particularly without getting indigestion. It is common knowledge that some people can not get fat, and yet they are without organic cause for leanness. It seems to be a matter of temperament or metabolic rate. It is also common knowledge that these individuals can constantly overeat without sensations of discomfort. Constant overeating may produce one of three things—obesity, indigestion, or metabolic disaster, such as diabetes. Is it not probable that stimulation of the metabolic rate for years might break down metabolic processes in the same way as running a motor with a wide-open throttle will shorten its life through premature exhaustion? Our experience would certainly corroborate this belief and explain many cases of diabetes.

In another place Professor Osborne says, "Waste of food from overeating is doubtless small and quite likely fully compensated for, because a large portion of the 'good feeders' are among the most efficient in every community." The efficiency of these individuals shortens their lives in direct ratio to the number of pounds overweight they are. Physically, they are many of them effete. Mentally, many of them, by temperament and habit, show a capacity only second to that of their stomachs, while many more show a mental capacity like that of the Fat Boy in Dickens. It is likewise a common experience for men to reduce their weight and limit their rations to increase their efficiency in every way. Even the "good feeders" who are not overweight experience this.

A millionaire could not possibly eat as much in a week as a coal heaver unless he engaged in exercise more severe than would be agreeable. If you tried a stuffing experiment, no doubt this would be true. But in real life the millionaire often does eat as much or more, and it is easy for him to do it because of his choice of food. Fat in the form of butter, cream, and rich meats, and sugar in rich desserts and cake, will allow the millionaire to "win at a walk" without eating anywhere near the same bulk of food.

The statement that "it is not at all improbable that many delicate people of sedentary habits who eat but little suffer chiefly from a deficient supply of vitamines" is one which the practical clinician would feel inclined to dispute. As the main deficiencies in diet result from too little variety in the food and as the chief interest of many of these delicate people is to obtain variety and tempt their appetites with all sorts of delicacies in and out of season, it seems probable that their physical vigor suffers more because they do not use what little they have. In other words, their temperamental habits are more at fault

Fig. 2. Macaroon banana with whipped cream.

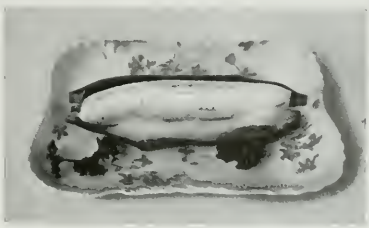

Fig. 3. Banana and apple pudding served in baking dish.

*From the Boston Medical and Surgical Journal, December 19, 1918.

than absence of vitamines. The value of exercise lies in the exercise itself as much as in anything else. Strength and physical vigor come from exercise and not from food, except indirectly. The indolent and well-fed have often less physical vigor than any other class. It is only by using one's strength that one can increase his strength, and in this light it may be independent of food. If it is true that few people overeat, as Dr. Osborne supposes, it is certainly true that fewer people undereat, except from poverty or lack of food. . . .

When Professor Osborne says that dietary habits which satisfy these promptings of instinct are among the most difficult to change, whereas those that do not satisfy instinct are easily changed, he shows a better acquaintance with the dietary habits of the albino rat than with that of his fellow men. Dietary habits are habits, and I have yet to see any dietary habits easy to break, or any other habit that has existed in an individual or a race for a generation or a century. For nearly two years I worked in Newfoundland among a people who suffered from deficiency diseases, and in all that time they did not learn to eat more than one new food.

The changes that have gradually taken place in our dietary over the last one hundred fifty years are extraordinary. Professor Osborne refers to the lack of vitamines in some of our highly milled flours and warns against them. Our American dietary tastes are more and more running toward these refined foods. Think of the prepared breakfast foods of today that did not exist a generation ago. Think of the changes that have come over our national dietary in one hundred fifty years. For example, sugar consumption has increased during that time from one-fourth pound per year, perhaps, to one-fourth pound per day. Patent white flour in 1914 had almost completely replaced the partly bolted flours of two generations ago.

When we speak of instinct as a guide to a national dietary, we should consider the nation and the food supply. The Chinese have lived for thousands of years upon a natural dietary. We have lived for hundreds of years upon an ever-changing one and one which is becoming increasingly an artificial one. It is true that the West Indian negroes choose a diet for themselves that is nearly ideal. In the West Indies rickets is almost unknown among the negroes. Transplant these same negroes to New York City, and ninety-eight out of one hundred have rickets. Instinct does not help them in their artificial environment. But a large part of our population are transplanted. The working people, from necessity, choose what they can afford to buy. The Italians choose a very low protein diet and are physically efficient. The bankers and millionaires choose a high protein diet and are physically effete. The millionaire has not nearly so safe an instinct as the pig. He has meat or eggs three times a day and fat in excessive quantities. Italian families here get meat once a week, eggs never, cheese and milk only in small quantities, and they eat their bread without butter. It is pretty safe to say that the laborer does not overeat, but the traveling salesman always does.

National dietary studies, unfortunately, do not extend over hundreds and thousands of years, as they should to be of real value to the scientist. The effect of high protein diets on one generation may be small, but on one hundred generations very great. The relationship between degenerative diseases—vascular sclerosis, nephritis, diabetes—and diet is unknown. I am told that high blood pressure is unknown in Korea. We know that degenerative diseases are increasing in this country and that they always increase as a people become physically indolent and epicurean. The Chinese coolie, than whom no being performs more physical work, is a "seed-eating oriental." Why do not the English thrive in India? Because they take their insular habits of eating with them and do not modify their dietary habits to conform with the climate and environment. . . . Climate and temperament modify the diet of races and individuals. In our country we have extremes of both. . . . Must we not teach the new American his particular dietary needs, both as to what and how much to eat?

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NEWS NOTES OF DIETITIANS

Elizabeth W. Fee has resigned her position as superintendent of the New York School Lunch Committee and has taken charge of the Institutional Course at Pratt Institute.

Miss Emma Childs, who until recently has been dietitian in the nurses' home at John Hopkins Hospital, is now purveyor at Goucher College, Baltimore, Md.

Miss Claribel McCrea has resigned her position at Allentown Hospital, Allentown, Pa., to accept a similar position at the Philadelphia General Hospital. Miss McCrea is succeeded at Allentown by Miss Bentley.

Mrs. Beth Titus has resigned her position as dietitian at St. Barnabas Hospital, Minneapolis, Minn., to be succeeded by Miss Martha Kimball, University of Minnesota, 1917.

Miss Vera Layne has accepted a position as dietitian at the Oil City General Hospital, Oil City, Pa. Miss Layne just completed a six months' course of training as student dietitian at Lakeside Hospital.

Miss Aline Wolff has gone to Franklin Hospital, Franklin, Pa., to develop a dietary department. Miss Wolff is a graduate of the University of Illinois and had student dietitian training with Miss Geraghty of New Haven Hospital, New Haven, Conn.

Miss Edith Lincoln, who rendered valuable service in the base hospital at Fort Riley, Kas., has returned to civil life.

The New York Association of Dietitians held their annual meeting in February in the Nurses' Training School Hall, New York Post-Graduate Hospital, at which the retiring officers gave their reports. The membership for the year showed an increase from fifty-two to seventy, including an honor roll of seventeen, eleven of whom have seen foreign service.

Last year Miss Isabel Lord, Pratt Institute, and Miss Emma Gunther, Administration Department, Teachers College, became honorary members. This year Miss Adelaide Nutting, Nursing and Health Department, Teachers College, and Mrs. Mary S. Rose, Nutrition Department, Teachers College, were also elected.

Among many items discussed during the year were the following: (1) courses for pupil dietitians; (2) courses in dietetics for nurses; (3) canteen work; (4) food problems in Russia; (5) new text-books; and (6) new ideas in institutional equipment.

The following officers for the coming year were elected: President, Miss Eleanor Wells, assistant in Household Administration Dept., Teachers College; first vice-president, Miss Stella Barker, dietitian, New York Hospital; second vice-president, Mrs. Shafer, manager, National Bank of Commerce Restaurant; corresponding secretary, Miss Charlotte Addison, director, Nutrition and Clinical Dietetics, New York Post-Graduate Hospital; and recording secretary, Miss Alice Penrose, director domestic science, Central Branch Y. W. C. A.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.
Director of the Boston Dispensary.
Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

WHAT THE VENEREAL DISEASE CAMPAIGN HAS DONE

Vast Program of Education Carried On During the War Has Created a Country-Wide Demand for Diagnostic and Treatment Facilities—Are the Hospitals Ready to Meet This Need?

By ALEC N. THOMPSON, Major United States Public Health Service, Washington, D. C.

The declaration of war on April 5, 1917, placed the United States face to face with a potential danger, a danger to the health and welfare of the nation, a danger so large and so real that there was no time for theorizing. The control of venereal disease presented a problem, a problem that was practically unmeasured. A relatively unknown condition had to be met and met squarely.

In 1917 there were scattered throughout the United States a few isolated clinics competent and willing to treat gonorrhea and syphilis. In addition to the dispensaries actually in operation, there were a few—relatively a very few—hospitals that had bed facilities for the care of communicable cases of venereal disease and a few additional hospitals that were capable of caring for some of the disabling sequelae of gonorrhea and syphilis. To the few people throughout the country that had been interested in improving and developing facilities for the prevention and treatment of these diseases, the opportunity loomed large, and, after conferences with officers of the government, a program was outlined and a definite policy declared.

A great many organizations have cooperated in carrying out this program, and the active participation of all the agencies in carrying on the varied activities entering into the control of venereal disease has made a positive reduction of at least 60 percent in the annual venereal rate of the United States Army, excluding cases contracted before enlistment. Under the selective service act the President of the United States was authorized by Congress to protect the military forces from the evils resulting from the use of alcohol, and the Secretary of War was empowered and directed to regulate zones surrounding military places in order to protect soldiers from prostitution. The Commission on Training Camp Activities was created to suppress vice and counteract harmful influences by developing a constructive program of entertainment, education, recreation, athletic and social activities, etc., both within and without the training stations and cantonments.

Protective and constructive work applied to both the army and navy, for while the commissions were in reality two, one army and one navy, Raymond B. Fosdick was chairman of both, and the general plan and method was basically the same, a fact which helped to secure uniformity and standardization. The program for combating venereal disease emanated from the Surgeons-General of the Army and Navy, and the Commission on Training Camp Activities had constantly the support, suggestion, and direction of the Secretary of War and the Secretary of the Navy. The medical departments of both branches of the service organized administrative sections for the purpose of directing the broad details and of conducting the educational work among the men, as well as the organizing of diagnostic and treatment facilities to care for the infected individual.

From the first day of preparation, it was realized that treatment facilities were needed in the civilian communities if the infected individuals, male and female, were to be cared for in any degree. The Public Health Service, cooperating with the Red Cross, organized clinics in the various states which at the beginning of the war were unable to care in any degree for the venereal disease carriers within their borders. Today the Public Health Service has a special division for the purpose of more intensively carrying out this work in coordination and cooperation with the various state health authorities and the War and Navy Departments under the Kahn-Chamberlain bill. This is a new work that will carry on all the activities started as a war measure, and the hospitals and dispensaries throughout the country must be ready to meet the demand for treatment that will be the inevitable result of extensive public health education and publicity upon the subject of gonorrhea and syphilis.

The program for combating venereal disease was designed to attack from every possible angle and prevent in so far as is humanly possible the destructive effect of gonorrhea and syphilis through military and human achievement. In an effort to control the temptation offered to the soldier by the prostitute and the illicit provider of liquor, the Commission on Training Camp Activities has maintained its law-enforcement division from the very beginning of the war. This organization is at present composed of 95 officers, 20 non-commissioned officers and 75 privates scattered throughout the country, doing a very able and constructive piece of work. After war was declared, considerably over a hundred red-light districts were closed throughout the country. In addition to this, a large number of houses of prostitution not in segregated districts were closed, the work being done primarily by stimulating the police authorities of a community and the community itself to an understanding of the seriousness of the problem. Thus the temptation feature has been attacked in a wholesale manner and, as a follow-up, police women, protective patrol workers, and others have been exerting a constant vigilance upon the streets of the cities throughout the country. In one city of over half a million population, in a period of six months, over a thousand girls have been picked up by Federal workers, have received advice and instruction, have been urged to submit to a physical examination, and have been placed in the hands of various social agencies for continued protective work largely through education. Of this group of a thousand girls, only about 2 percent were court cases; about one-half have had a voluntary physical examination, and of this group 50 percent have been found infected. The seriousness of the problem is realized only when one considers that the majority of these girls were under eighteen and that they were almost entirely not the class commonly regarded as prostitutes.

The mere removing of temptation in no way solves the problem, and the program was framed with the idea of providing facilities for red-blooded recreation to take the place of the white-light type of recreation which had been removed. The work of the Commission on Training Camp Activities along this line, through its cooperative organizations in the camps and military zones, is well known. Recreational facilities have been of positive benefit in taking up the slack time of the men, maintaining their interest, and accomplishing a definite inhibitory action as far as exposure to venereal disease is concerned. The entertainment and social activities very clearly parallel recreational work by reducing the sum total of exposure to gonorrhea and syphilis. Few people have considered this work as part of a campaign for combating venereal disease, although in the minds of those who planned the program it was a definite and distinctly constructive part of the work. The educational program has been conducted very thoroughly in the camps throughout the United States, and it is safe to assume that almost the entire personnel of the United States forces have had impressed upon them the seriousness of gonorrhea and syphilis; this new consciousness will definitely create a demand for treatment facilities throughout the country.

That there was a need for treatment prior to our entry into the war is very evident, for statistics show that over five-sixths of all the cases reported in the army were contracted prior to enlistment. In one camp, the average period of time elapsing between the onset of symptoms and the examination at the camp was six months, and it is the consensus that almost without exception these men had received inadequate treatment; the reason would seem to be lack of facilities. The problem is placed squarely before the medical profession both in and out of the hospital. The demand at present exists and in the future will become insistent that the medical profession and the hospital organizations equip themselves adequately to handle the existing condition. In one group of 112,000 men, 7,600 were accepted with venereal disease on the first draft. In a group of five camps, over a period of thirty-four weeks, the annual venereal rate, based on these thirty-four weks, was 347 per thousand per annum, but when separated into before and after enlistment the figures show that 336 per thousand per annum were contracted before as against 11 contracted after enlistment. It is not possible at the present time to interpret correctly the figures for the army in the United States, as there is too large an element of error until complete tabulations are received from all camps. The figures given, however, are indicative of the general situation, as they are based on representative camps.

It has been claimed by some that the reason for the low rate in the army is largely "prophylaxis" so-called, or "early treatment," as it is called in the army today. It is evident to all that the primary consideration of the medical department of the army is to keep the largest number of men fit to fight, and it is recognized that, no matter how effective or efficient any campaign might be for combating venereal disease, it could not be expected that no man would be exposed to infection. It must be realized by everyone that at the present time sexual promiscuity cannot be eliminated in its entirety; the army met this fact by a definite program for early treatment. The term "prophylaxis" cannot be applied in its strict meaning to the procedure of applying medical preparations after sexual intercourse has occurred, and it has been explained to the men from the very beginning that early treatment was available for those who were fools enough to expose themselves to the dangers of contracting disease after they had been educated and provided with opportunities for recreation. The prophylactic packet was not recognized by the army as either efficient or desirable. In its stead, early treatment stations were maintained in regimental infirmaries, and a number of stations were established in the largest cities to which troops go or through which troops pass. The stations in the infirmaries were under the supervision of the medical officers of the various posts and camps, while stations in the communities were under the supervision and, in the majority of cases, under the direct control of the Surgeon-General's office. Statistics are not available as to the sum total of treatments given. The facilities were not used to the extent anticipated. In other words, the promiscuity rate is very much lower than was expected, and this rate may to a considerable degree be taken as the indication of the effectiveness of the program of protection, instruction, and recreation.

It is the firm belief of those who have been in closest contact with the work that there has been an actual and a large reduction in the number of exposures. As far as records indicate, in those camps where the strongest educational program is conducted, the best recreational facilities provided, and the most effective protective work maintained, the early treatment rate has been remarkably low. It has been the experience of the army that the rate of venereal disease contracted after enlistment has maintained a general average, and, as said before, a reduction of about 60 percent of the pre-war rate, and it is evident that "early treatment," so-called, has not been the entirely responsible factor. As the early treatment rate drops, the venereal disease rate remains the same, and there seems to be but one conclusion to draw, namely, that as the prophylaxis methods in general—that is, vice suppression, education, recreation, etc.—increase, the exposure rate decreases.

If these methods are good for the army, they are bound to be good in civil life and, beyond any question of doubt, the ground gained in veneral disease control as a war measure will not be lost as the country returns to a peace basis. The treatment facilities available within the army must be made available for the civil population. To this end, every state health department, in cooperation with the Public Health Service, as mentioned above, is organizing a division for combating venereal disease, and, in general, the plan provides for the establishment of free diagnostic facilities, the establishment of free treatment facilities, the reporting of gonorrhea, syphilis, and chancroid, the elimination of quacks and charlatans, the prevention of treatment by drug store counter prescribing, and the examination and treatment of carriers, both male and female, who may be classed as incorrigible. This program would logically include the examination and treatment of prisoners and their detention beyond their ordinary terms of incarceration until they are no longer a menace to the community. Into this field the hospitals, dispensaries, and the medical profession at large must enter, and enter wholeheartedly. The medical profession and the hospitals must be ready and willing to provide earlier and more efficient diagnosis, more prompt and effective treatment, and adequate follow-up, in order to keep pace with the coming public enlightenment. No case of syphilis need wait for the secondary symptoms to develop, and any clinic or physician failing to make a diagnosis during the primary stage of syphilis must be considered almost criminally negligent.

It was obviously impossible to conduct the protective work necessary entirely through the enforcement of law, because no law is efficiently enforced unless there is com-

munity sentiment back of the officials. The educational work done among the civilian communities by the social hygiene division of the Commission on Training Camp Activities has been extensive and was conducted by means of letters, pamphlets, lectures, etc. A very large number of circular letters have been sent out, and, in a period of ten months, resulted in over thirty thousand actual correspondents throughout the United States. In other words, while many more circulars, form letters, pamphlets, and the like, were distributed, thirty thousand individual correspondents showed their keen interest in the campaign for clean camps, clean communities, and clean fighters. A goodly share of these correspondents were representatives of societies, civic organizations, fraternal bodies, etc., and thus, by subdivision of effort, the material reached a very large portion of the community. In one instance, for example, the enclosures sent with a letter to an old correspondent brought forth a request for a sufficient supply of material to reach the twelve hundred friends composing the manufacturers' association of which he was a secretary. In this general campaign of publicity, the total number of communities reached during the first year of the war was in excess of seven hundred and fifty. An additional audience that it is impossible to measure accurately has been provided with material bearing upon the subject of venereal disease through numerous publicity schemes, the most important of which is probably the house organ campaign; this consisted of various types of material, such as stories, etc., for the newspapers, magazines, etc., published by the larger industries. One advertising expert who has been interested in the work and has watched it very carefully figures that the house organ as a vehicle has placed the message before seven million persons.

Another large number of men and women have been instructed through the campaign caried out in cooperation with the employers of the country. Upward of four hundred firms, ranging in size from the larger national organizations to the small industrial plants which employ only one hundred or so men, have introduced a ten-week educational campaign reaching three hundred thousand male employees. In addition to this, some of the largest national industrial organizations reprinted the government material and carried on the work, thus reaching probably an equal number of which the central office has no positive knowledge.

Similar work is done for the women, and, in addition, lectures were conducted throughout the country in the form of noon-hour talks, meetings of women's clubs, and the like. This work has reached over five hundred and fifty thousand women, divided up into three thousand four hundred groups, and scattered through two hundred and sixty communities in almost every state of the Union.

In illustration of this work, it can be said that, in the state of Massachusetts, where only seventy-five firms bought educational material to place before their employees, the number reached a total of about twenty-five thousand. In addition to this, a positive impression has been made upon the general community through other methods of publicity, such as the War Department film, "Fit to Fight," which, again using the state of Massachusetts as an example, was shown to over seventy thousand men.

All types of communities, both large and small, are being heard from, directly or indirectly, and the correspondents state with remarkable unanimity that no proper facilities exist to their knowledge for the treatment of gonorrhea and syphilis. As one writer expresses it, "With the number of cases of venereal disease which we all know exist in this country, it seems to me useless to argue that additional facilities do not need to be provided for their treatment."

Much work has been done—more will be done—and, to the remark just quoted, might be added the statement that, as existing treatment facilities are advertised, the program must and will result in the action anticipated—a positive demand for adequate treatment.

Through the large amount of publicity given to the subject during the past year and a half, throughout the entire United States, the general public has been permitted an insight into the problem of venereal disease, its ramification, and its crying need for control. No longer are we working in the dark with our communities. There is today a large number of people who, if they are unfortunate enough to contract venereal disease, will have some appreciation of the need for treatment. There is a large group steadily growing, to which the medical profession, hospital officials, druggists, and others, will be added, that stands ready to advise the victim of the necessity for treatment, and the question naturally arises, "Is your community hospital ready to meet the demand thus created?"

Fellowship for Public Health Men

The Harvard Medical School, in cooperation with the Boston Dispensary, offers a fellowship to graduates in medicine who desire to pursue a course of study leading to the certificate of public health in the School for Health Officers, or to the degree of Doctor of Public Health in the Department of Preventive Medicine and Hygiene.

Fellows are required to give about half their time to the treatment and supervision of the sick in clinics or in their homes for the Boston Dispensary, and half their time to study or research at the Harvard Medical School. Appointments may be made for one or two years. The stipend is from $750 to $1000 annually, depending on the details of the arrangement made.

Applications stating previous experience, references, etc., should be made to Dr. Milton J. Rosenau, professor of preventive medicine and hygiene, Harvard Medical School, Boston, Mass., or to Michael M. Davis, Jr., director of the Boston Dispensary, 25 Bennet Street, Boston.

Public Education in Rural Sanitation

An educational campaign has been in progress for some time among the rural communities of Minnesota by the State Board of Health in the subjects of water supplies, excreta disposal, and sewage disposal, and state-wide publicity has been attained through circulation of bulletins in rural districts. Routine investigations on the milk supplies of municipalities and institutions in varous parts of the state constantly afford an opportunity for educational work. Some attention has been given the rural housing problem, and advice concerning the construction of buildings on dairy farms has resulted as a routine practice in connection with the investigation of milk supplies.

The school children of the state of Arkansas are to be organized in the Modern Health Crusade, an organization created by the National Tuberculosis Association for the practice of hygienic living. A national tournament is to be held from February 9 to May 24, running fifteen weeks. The Junior Red Cross and the Arkansas Public Health Association will participate in the campaign, which is designed to be the biggest ever launched in the interest of public health.

HEALTH AND MODERN INDUSTRY

Conducted by BARROW B. LYONS
Superintendent Delaware Hospital. Wilmington, Del.

THE RELATION OF THE HOSPITAL TO THE COMPENSATION INSURANCE COMPANIES

How the Out-Patient Department of Public Hospitals Can Be Made a Stronger Factor in the Handling of Industrial Accident Cases—A Problem for the Hospital Executive

By THE LIBERTY MUTUAL INSURANCE COMPANY of Boston

Whether the industrial worker is worth one dollar an hour is still a debated question. It is a fact, though, that his status has improved to a wonderful extent in the last decade. Employers have come to realize the value of keeping him in good physical, mental, and moral shape. Every effort is being made to surround him with ideal working and living conditions. The lighting, heating, ventilation and sanitation of the shop and home are subjects of intense study, and constant improvements are being made along these lines. This is not philanthropy. It is based on sound economic grounds—the better the worker, the greater the returns.

There is another side, to this, however—the more the worker produces, the greater the loss when he is idle. Consequently, accidents that mean idle time cost more than ever before.

The Liberty Mutual Insurance Company of Boston, in their recent book entitled "Surgical Service for Employees That Increases Profits for the Employer," makes the following analysis of the cost of accidents:

Fig. 1. The waiting-room of the Boston surgical department of the Liberty Mutual Insurance Co.

THE MONEY LOSS TO EMPLOYERS FROM INDUSTRIAL ACCIDENTS IN THE UNITED STATES IN 1917

$100,000,000—Amount of premiums paid for compensation insurance.

Plus—Lost production during injured employees' absence from work.

Plus—Lost production because of time wasted by employees during confusion at time of accident.

Plus—Lost production because of idle time of employees whose work depends on function of injured employee.

Plus—Lost production during time required to train new employees when injured employees cannot return to work.

Plus—Lost profits because of material wasted in training new employees.

SUM TOTAL—Lost time—lost production—lost profits.

Fig. 2. Close study is given each individual patient in these surgical departments.

This shows very clearly the importance of the speedy handling of accident cases. Many large industrial establishments have solved the question so far as they are concerned by installing hospitals and rest rooms and keeping doctors and nurses in constant attendance. The profits from increased production have paid many times over the cost of doctors and nurses.

The bulk of our accident cases must continue to be handled, however, by our public hospitals. Whether the officials of these hospitals are fully alive to the importance of work to be done along the lines of improving industrial accident service is an open question. In a recent interview a surgeon with a national reputation gave his opinion as follows:

"The welfare of the industrial worker and the treatment of industrial accidents are of great importance to any community. The out-patient departments of our regular hospitals are supposed to look after industrial workers, and they do to a great extent. But there is generally lacking an element of personal interest in the welfare of the individual and any incentive to hasten the recovery. Cases are treated as a regular routine. The surgeon in charge is a young man who is looking forward to the time when he is to be given a position in the house. Most of the work is done by one of the house officers, and the

surgeon sees only the new cases, or occasionally a case which is not doing well, or else one in which the question has been raised as to the advisability of its being sent into the house.

"Cases are not neglected, but cases are not looked after as they might be. The welfare of the wound is looked after, but the welfare of the individual is liable to be neglected. The dressings are applied mostly by medical students, orderlies, and nurses, and no particular study is made of results just so long as the wounds are properly healed. If fingers and hands remain stiff after sepsis, it is considered unfortunate—but no determined effort is made to remedy it. The work in the out-patient department is considered more or less of a drudgery, and the sooner the promotion into the house comes the better, of course, the surgeon in charge likes it.

"Up to the last few years very few of the cases were followed up properly. When the laws of compensation

Fig. 3. All dressings, utensils, and surgical instruments are carefully sterilized after use.

were passed, though, with the consequent added cost to the employer, it became perfectly apparent that a new era had commenced. Records had to be kept of every case, because the complete history of every accident is necessary to the equitable adjustment of compensation. The keeping of these records meant additional expense, so that a charge had to be made to the insurance companies. It soon became apparent that a charge had to be made also for accident treatments, because the employers were no longer willing to make contributions to public hospitals where their workmen were being treated under the compensation act.

"Thus the compensation laws are gradually changing the character of so-called charitable institutions. *Instead of being charitable institutions, public hospitals are selling their services in the open market in direct competition with doctors and private hospitals.* Under these conditions, the question of the value of these services arises. Isn't it perfectly fair for the employer to demand that the best of care be given to his employees? Isn't it perfectly fair that the visits of the injured employee should be timed to suit the convenience of the employer and employee as well as that of the surgeon?

"If these things are done, there is no reason why the out-patient department should not become a very important part of every hospital. The day has gone by, however, for surgical men to give up the greater part of their lives in public hospitals for nothing. If the times demand that many surgeons must give more of their time and all of their skill to industrial cases, then there is no reason why these surgeons should not be just as well paid as skilled surgeons in private practice.

"There is one more point of importance in this connection. Before any man can call himself a surgeon he should qualify. As this matter stands today a student finishes his course and then announces that he is a surgeon. He should be made to prove it, and this can only be done by working a few years in a well-recognized hospital under competent men."

In connection with the opinion of this surgeon it might be well to quote further from the book previously mentioned as having been issued by the Liberty Mutual Insurance Company:

"Several years ago, after a careful study of the situation, the Liberty Mutual Insurance Company decided that a specialized medical and hospital service could be arranged that would do away with much of the time lost in the handling of accident cases. With this end in view, the company has established surgical departments of its own in important industrial centers."

These private surgical departments of the Liberty Mutual Insurance Company have been very carefully supervised, and the out-patient work has been planned to save all the time possible for employers and employees. Dr. William A. Brooks of Boston is medical director and senior surgeon, and under his supervision results have been secured that are very gratifying to both the insurance company and the employers insured with them.

One very important feature of this work is the practical elimination of waiting in the out-patient department and the dressing of as many as possible of the minor injuries during the noon-hour. The amount of time that these methods save and the amount of productive time that is probably lost in the treatment of minor accidents in public hospitals where long waits are very common, can be gathered from the following report of the Massachusetts Accident Board from July 1, 1916, to January 30, 1917:

NUMBER OF NON-FATAL CASES 135,257

No. of Cases	Total Disability in Days
96,024	1
11,697	1 to 3
19,421	4 to 7
6,885	8 to 10

In the balance of non-fatal cases total disability extended beyond these periods.

It is fair to assume that the greater proportion of the cases involving total disability of from one to ten days required redressing from time to time. If these cases were handled by our public hospitals in the routine way, it is also fair to assume that the employers of the injured workmen lost many hours of productive time. Just what this proportion of loss is, it is impossible for anyone to determine accurately, but to anyone familiar with the workings of the out-patient departments of our public hospitals, there is no question but that it is considerable.

There is another important feature in connection with the operation of the Liberty Mutual private surgical

Fig. 4. Dressing a stiff joint in the orthopedic department.

departments, and that is their orthopedic departments. These departments are especially organized to give service to employees whose skill is affected by the stiffness of some tendon or joint following recovery from accidents. No effort is spared to put the employee back on the job in the best possible shape. This is a service that every employer can appreciate.

The Liberty Mutual Insurance Company makes the following statement about the results secured:

"A summary of the work done by the Liberty Mutual surgical departments in the last five years shows the following results:

1. They have saved hours of valuable time for employers and employees in the treatment of accidents.
2. They have increased the efficiency of the employees of many of its policyholders by putting them into better physical shape than they were before they were injured. This includes valuable advice on right living, working conditions, etc., that an employee follows more quickly if it comes from his surgeons than if it comes from his own foreman or superintendent.
3. They have aided in the speedy adjustment of compensation; nurses and doctors have secured information for the adjusters that could not have been secured so soon after the injury in any other way.
4. They have aided in accident prevention; through the intimacy developed in treating accidents, conditions have been discovered that could be improved in many establishments at a very slight cost. Nurses and doctors have also spread the gospel of "Safety First" among the injured employees.
5. They have reduced the medical cost of handling accidents.
6. They have cemented pleasant relations between the employer and employee by giving immediate and interested attention to injuries. This sometimes is impossible when cases are handled by a private physician or at a public hospital. An employee who meets with an accident is naturally depressed, and, if he does not receive immediate attention, he feels that his employer has neglected to provide properly for his welfare. Valuable employees are often lost for just this reason."

These results seem to justify the effort expended, and the methods this company has used in the handling of industrial accident cases should be carefully considered by every hospital executive.

* * * *

A Request for Information

A request has been received from Mrs. Samuel Semple, a member of the industrial board of the Department of Labor and Industry of the Commonwealth of Pennsylvania, for information regarding the subject of the physical effect of lifting of weights, especially by women. Mrs. Semple's request reads in part:

"The subject has received much thought and consideration during the past months when women have been entering occupations new to them, but, so far as I can gather, the thing that is needed is actual observation of the effects of such occupations and practical study of the whole subject."

Information regarding this subject or regarding sources of information will be very greatly appreciated by the editor of this department.

* * * *

Under the direction of Dr. Loyal A. Shoudy, chief surgeon of the Bethlehem Steel Company, Bethlehem, Pa., two assistant surgeons and sixteen trained nurses cared for 70,000 surgical and medical cases during the last fiscal year of the company. The total number of hospital and dispensary visits was 210,000.

If you intend to do a mean thing wait till tomorrow; if you are to do a noble thing do it now.—Dr. Guthrie.

LETTERS TO THE EDITOR

"A Stranger in a Strange Land"

[Numerous letters received at the editorial office assure us that our readers are deeply interested in the series of Little Journeys written by Miss Margaret Robinson, our field editor, who is now doing publicity work for the American Red Cross in Paris. We believe, therefore, that the following letter recently received from her will be of interest.—Ed.]

I finished my survey of this department today and will be back in Paris now for a while to do some writing, after which I will probably make another extended survey over a much wider area before I can get home. I motored about a hundred kilometers today and went to three towns. My first stop was at Janville, a quaint old place with a tenth century church and a hospital in an old château where Joan of Arc stopped for the night on her way to Orleans. The new Franco-American dispensary will be partly in Jeanne's bedroom, and an old stone statue of the maid is on a fountain in the moss-grown garden. At Toury, the little old hospital was founded in 1730 by a tired traveler who found shelter there, and at Auneau there is a wonderful old gray-towered castle on the hill.

The other day, in going from Châteaudun to Cloyes, we passed the castle of Montigny. I turn my nose up now at churches any younger than the thirteenth century.

I find that my dreams of getting home in April are shattered, which means that I am so much further off from seeing you all and God's country again, and getting a real cup of coffee with cow cream in it.

Next week I am going to Bordeaux and later to Marseilles, Toulouse, to Finisterre, to Brittany, and to Nice, where I will get a chance to see Monte Carlo. My French is getting to be almost human, and I have reached the stage where I can find my way about pretty well. At least, I have found a most satisfactory way to get a good lunch. I eat an omelette and *petit pain* at one restaurant, where the coffee is very bad and they have no desserts, and then I go to a near by tea-room, where I can get a delicious chocolate and macaroons to finish up.

Last night we went to the opera and had a loge on the left of the stage nearest the sky. The orchestra is wonderful. Berlioz' Damnation of Faust was on. I never did love the music of it, but we went mostly to see the dignitaries of the Peace Conference, for whom the performance was given, and had the most of our fun between the acts watching the promenade above the grand staircase. We sat right opposite the presidential box and had a good view of the party. I saw gorgeous-gowned and bejeweled ladies and handsome officers of almost every nation under the sun except the Boche. We Americans were all very properly in uniform, of course.

I wish you had time to write more often, as letters are surely a godsend to us exiles in this country.

MARGARET J. ROBINSON,
2 Rue de Rivoli, Paris, France.

A Spirit of Cooperation Which We Appreciate

To the Editor of THE MODERN HOSPITAL:

Referring to the editorial, "A Nurses' Home With Some Commendable New Features," on page 46 of the January issue, the criticism on the location of classrooms and quarters for domestics is a just one, and we would have been glad to have these rooms grouped as suggested, but it did not seem possible with the definite requirement of the large room and the location on the hillside pitching two ways. As a matter of fact, the assembly room is used only for class work, as the airing balconies are used for dancing and gatherings and there is consequently no conflict, as you suggest. We hope in time to change these rooms for purposes more directly connected with the home, as it is intended to keep servants in this building temporarily only.

We appreciate your personal interest and the good work THE MODERN HOSPITAL is doing in the hospital world. More power to you.

WARREN C. HILL,
Kendall, Taylor & Co., Boston.

[We have asked permission to publish this reply to our criticism of certain plans, because of the very clear and very kindly way in which it brings out the reason for such criticism. In other cases as well as that of our correspondent, the architects of plans commented on have very probably taken into consideration the points criticized and have chosen the particular solution of the problem adopted with due regard to general principles of hospital construction as well as local conditions. We think it advisable, however, to call attention to departures from general principles in order that a method of construction adopted to fit particular conditions may not be mistaken for a formula suitable for universal adoption. It goes without saying that, if a plan is published in THE MODERN HOSPITAL, that fact may be taken as an indication that THE MODERN HOSPITAL regards it as above the average in merit.—ED.]

* * * *

Ten-Year Old Children Work Only Eleven Hours

To the Editor of THE MODERN HOSPITAL:

The Charlotte *Observer*, of Charlotte, North Carolina,—the volunteer and highly enthusiastic champion of the North Carolina cotton manufacturers—rushes to the defense of its clients in a recent issue. Under the caption "Miss Lathrop Corrects Some Figures Bearing on Carolina Industries," the *Observer* correspondent quotes a letter from the chief of the Children's Bureau to Eugene Holt.

Judging by the context, Eugene Holt had made a protest against the report of the Federal Children's Bureau on present child labor conditions and had expressed the feeling that exaggerated and sensational reports from a Federal office regarding the situation in North Carolina might lead the uninitiated public to think that North Carolina cotton mills actually employed children. Of course, it would be unfortunate for this industry to rest under such a cloud. Miss Lathrop, chief of the Children's Bureau, therefore takes down the files containing the investigators' reports and looks them over again to make sure that justice is done. She says it was unfortunate that anyone should have had the impression that the official reports referred only to cotton mills, because the statement of the bureau given to the press plainly indicates that it refers to all industries.

This is not Miss Lathrop's fault or the fault of the public—there is a super-sensitive self-consciousness on the part of the cotton mill industry, which has persisted in thinking for the past fifteen years that every criticism on child labor in America was directed against that industry. Advocates of child labor reform have never been able to refer to child labor in the glass factories of West Virginia, the coal mines of Pennsylvania, or even the beet fields of Colorado without having the North Carolina cotton manufacturer get hot under the collar and retort that they were attacking his business and that the child labor "uplifters" were financed by New England capital in order to destroy the infant industry in the South.

And so Miss Lathrop goes to the trouble of making it clear that the cotton mill employers are not the only ones in North Carolina that offend against the rights of innocent childhood. She says, "We find that the five-year-old children at work were not in the cotton industry." This ought to silence forever those critics of that gentleman's agreement in North Carolina under which the organization of any official state supervision of industry has been persistently opposed. Why should anyone any longer ask for such supervision? Even without it these custodians of the people's welfare have ruthlessly excluded from their mills all five-year-old children.

Miss Lathrop further says that "Ninety-one children between six and ten were found in five industries including cotton, and that the children of these ages in cotton industries who were working regularly were working eleven hours a day." How have the mighty fallen and the weapons of war perished! Tell it not in Gath lest the daughters of the Philistines rejoice. Ten years ago those of us who have been dubbed by our critics as "child labor agitators" were branded as infamous falsifiers when we ventured to report that children of eight, nine, and ten years were sometimes found at work in cotton mills. We can afford now to rest our case. Here comes the Charlotte *Observer*, defender of the holy cult of cotton manufacturers, to assure us on Government authority that no children of five years are found in the cotton industry and that the children in the cotton mills between six and ten years of age are working only eleven hours a day!

The chief of the Federal Children's Bureau says that the mills visited constituted about one-tenth of the total number in the state and they were a fair sample. We therefore gratuitously contribute to the Charlotte *Observer* and to its constituency whatever comfort they can get out of the Government estimate that not more than 910 children between six and ten years of age are working in the five industries investigated in North Carolina and that those of this number in the cotton mills who were working regularly are on the eleven-hour shift. These are the industries presided over by the men who assured Congress that without a federal law North Carolina would protect her own children. Happily there are other forces in North Carolina at work—forces keenly alive to the necessity of safeguarding the children of that commonwealth, and we may expect them to be heard at the next session of the legislature demanding the enactment of a well-considered program for child conservation.

But since the Charlotte *Observer* has turned state's evidence, let us take occasion to warn the North Carolina friends of the children that they must be cautious and conservative. We agree with Miss Lathrop that "in a time like this, whose difficulties of adjustment are evident," it is especially desirable to put forth no "sensational or exaggerated statements." Let us bear in mind that no children of five years were found at work in the cotton mills and that the children between six and ten years worked only eleven hours a day!

OWEN R. LOVEJOY,
Secretary of the National Child Labor Committee.

DEPARTMENT OF NURSING

Conducted by ANNIE W. GOODRICH, Dean Army School of Nursing and CAROLYN E. GRAY, R.N.

Please address items of news and inquiries regarding Department of Nursing to CAROLYN E. GRAY, R.N., Principal, City Hospital School of Nursing, Blackwells Island New York.

PUBLIC HEALTH WORK IN THE SANITARY ZONES*

Intensive Nursing Service Helps to Prevent Disease and Increases the Number of Patients Reached—Experience in the Zones Around the Camps Has Lessons for Public Health Work at all Times

By MARY E. LENT, R.N., Director of Nursing, United States Public Health Service, Washington D. C.

The health of the soldier as well as the civilian has depended very largely during the period of the war upon the activities of the United States Public Health Service in the sanitary zones surrounding the camps throughout the country. In each of these zones, the officer sent by the service has sought to coordinate all existing health activities and to supplement by the employment of other workers—bacteriologists, sanitary inspectors, and nurses—such activities as already existed. It was recognized almost immediately that no amount of preventive work within the training camp itself could insure this well-rounded health protection and that the correction of the dangers lurking outside the camp, such as the mosquito and fly-breeding places, insanitary handling of foodstuffs, the often polluted water and milk supply, the lack of isolation of communicable diseases, etc., was of vital importance in the vast work of delivering direct to the firing line men physically fit.

It may be of interest to note just how and why one of these zones was established. In the spring and summer of 1917, a typhoid epidemic was in full sway in a certain town. The local health authorities were unable to check it, and as the town was adjacent to a big army post, it sent out the "S. O. S." In August, 1917, the first Government health officer arrived, and shortly afterward the American Red Cross had a unit in the field and work started immediately. Officially each of these zones is known as an "Extra Cantonment Zone" and "Red Cross Sanitary Unit." The personnel of this particular zone consisted of one medical officer in charge, one assistant surgeon, three United States Public Health Service nurses, three Red Cross nurses, one sanitary engineer, one chief sanitary inspector, one bacteriologist, one assistant, one milk inspector, three sanitary inspectors, one clerk, and one stenographer. Two Ford cars were donated by Henry Ford through the Red Cross for the use of the nurses and sanitary inspectors, and the city bought one for the use of the doctor.

One of the first things done was to inoculate the people with typhoid serum free of charge; other physicians in the city offered their services and in a short time over six thousand people were inoculated. Each typhoid fever patient in the city was visited by one of the nurses, and, before a patient could be released from quarantine, a specimen of stool was examined by the bacteriologist to be sure that he was not a typhoid germ-carrier. For over two months, the doctor and the nurses were on the go; working hours were not counted; visits were made night and day. But results began to show; new cases were dwindling—only a few new ones a day, in contrast to ten or twelve a month before—and since October only five cases have been reported; two of them had just come to town and the others had not been inoculated.

In September smallpox broke out. Steps were immediately taken to prevent an epidemic. The order went out that all school children not having a certificate of vaccination must be vaccinated or stay out of school for twenty-five days. Doctors and nurses went to the schools and vaccinated free of charge; the result was that 94 percent of the school children and a large percent of grown people were vaccinated. The same preventive measures are taken when any other contagious disease is reported.

Every child in the schools of the city and county has been examined, and a history of the diseases each has had is kept in the office, together with a record of any defects; notification cards of these are sent to the parents so that the children may be treated by their family physicians. Every home in the county outside of the city has been visited by United States Public Health Service nurses in order to give instruction on the health and care of babies. All sanitary conditions of the zone are supervised.

The organization and workings of this unit are typical of those throughout the country. As a rule, the zone proper comprises five miles about each camp, but in some places where it has been requested by the local authorities, whole counties have been included in the areas thus administered, and many local organizations have contributed to the salaries of the nurses needed.

On account of the tremendous increase in population over normal times, it has been necessary to correlate the work of the public health nurses in these zones and to drop much of the usual bedside care in order to cover the immense amount of instructive work which has to be done. At the beginning of the war there were, in a few instances, visiting nurses who were giving mainly bedside care. In a few other cases, there was a certain amount of school supervision of a very incomplete character. But the bringing together and pooling of resources had not been introduced, nor had the great economic and educational value of the public health nurse been demonstrated by this method in any of the zones. The conviction that this is no time to waste a minute underlies the plans for reorganization recommended in the various zones which have been visited. During a recent tour of inspection in one of the cantonment zones, it was recommended that a combination of various existing agencies, under the direction of the United States Public Health Service, be inaugurated. A brief outline of the general plan submitted contains the following recommendations:

That the city be laid out in small districts, with a nurse assigned to do all the nursing work in each district; that the supervisors of the various existing associations be retained as specialists to train the nurses and in an advisory capacity; that the funds now made available for nurses' salaries by the separate associations be applied for the same number of nurses for work under the new plan; and that the present directing bodies, such as the District Nurse Association, remain in existence as advisory boards.

*Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, N. J., Sept. 24-28, 1918.

This generalization of nursing work has been effected wherever possible as being the most economical use of the nurses' time and efforts. It provides a more intensive nursing service because it doubles the number of patients a nurse can visit, increases by 50 percent the number of reported cases of disease, enables disease to be recognized and treated in its early stages, facilitates the isolation of patients before they are able to infect others, keeps people well by educational work, and protects the civilian population and in that way the soldier—for a great proportion of the epidemics among the soldiers can be traced directly to the community in or near which the camp is situated. Indeed, in one month in four of the zones, while doing the regular routine work, it is a fact that the nurses recorded 574 cases of communicable disease which had not been previously reported. Who can say what the result would have been, both to the men in training in these cantonments and to the civilian population, had there been no nurses to help in the protection? How many hospital cases would there have been to be cared for, and how many nurses needed to nurse back to health, if possible, sickness which was thus checked at its source? For, at this rate, thirty-seven zones would average 5,291 cases discovered by the nurses in one month.

This generalization of nursing activity means less bedside nursing, but the nurses can teach others to do the simple things for which trained service is not required. It reduces the number of special nurses, but special supervision will make up this lack. This war, with its mobilization of soldiers in great centers, with its demand for highest human efficiency delivered promptly at the front, with its requirement for great number of nurses drawn into military service, presented an emergency which had to be met by emergency measures. This plan was put into successful operation in a number of the zones and cities.

Hundreds of American soldiers have died and hundreds of others have been brought down by preventable diseases contracted in the preparation and training of soldiers who were often unable to embark at the appointed time on account of sickness, much of which might have been prevented by proper prevention and organization. How appalling this military, economic, and human loss has been in the past was very clearly shown in statements made by Dr. Louis Livingston Seaman in testimony which he presented recently before the Committee on Military Affairs of the House of Representatives. Dr. Seaman has been in eight different wars in every part of the world for the sole purpose of studying military sanitation and the prevention of disease in armies. He gave, among others, the following statements and figures:

It must never be forgotten that in every great campaign an army faces two enemies—the armed forces of the opposing foe with his various machines for human destruction, who is met at intervals in open battle, and the hidden foe always found lurking in every camp, the grim specter ever present, that gathers its victims while the soldiers slumber in hospitals, in barracks, in bivouac—the far greater and silent foe, disease. Of these enemies, the history of warfare for centuries has proved that in prolonged campaigns the first or open enemy claims 20 percent of the total mortality in the conflict, while the second or silent enemy is responsible for 80 percent. In other words, out of every 100 men who fall in war, 20 die from bullets or wounds, while 80 perish from disease, most of which is preventable. This dreadful and unnecessary sacrifice of life, especially in conflicts between the Anglo-Saxon races, is the most ghastly proposition of modern war. In the five months of the Porto Rican campaign in the late Spanish-American war, 262 men died from disease while only three were killed by bullets. In the mobilization camps during that war, in the United States alone, 26,649 men died of preventable disease without one of them leaving the country or seeing the firing line.

One of the most important pieces of work accomplished in connection with the war has been the establishment of the venereal clinics which have been carried on jointly with the other zone work. Many of the clinics are in cities or towns where such care has never before been available. Also, the social aspect of these diseases is at last receiving the attention of which it has long been in need. Attached to many of the United States Government clinics are social service departments, conducted by socially trained public health nurses whose business it is to ascertain the moral and economic reasons for the infection of each person applying for treatment. The responsibilities of the nurses in these clinics have been of a varied character, the most important being the protection of the military forces, the safeguarding of the community, and the care of the innocent family of the infected person. As the work has developed, the vastness of the problem becomes more and more apparent, and the definite program being worked out by the United States Public Health Service in the newly established department for venereal diseases has become a nation-wide movement.

During the summer months, while the schools have been closed, it has been possible for the public health nurses to help establish and in many zones to carry on, in connection with their routine work, the program launched by the Children's Bureau for the weighing and measuring of babies and the establishing of welfare clinics. The results have been almost beyond belief in the cooperation of thousands of mothers and the opportunities open to the nurse to come into direct contact with the home life, that most important of all factors in the fight against disease.

Surely these figures and facts carry their own convincing arguments for the adoption of such means or protection for the men in cantonments as have been proved effective by the test of experience.

* * * *

TAKING STOCK*

Dean Herbert E. Mills Tells Where the Vassar Training Camp Students Stand

As the young women of the Training Camp for Nurses marched out of Vassar College chapel after the closing exercises on the evening of September 9, those who watched them could but be moved by enthusiastic anticipation as to what might be expected when hospital replaced campus and service supplemented training. In physique seemingly full of strength and elasticity, in mind trained and informed by weeks of fascinating study, in spirit filled with a sense of obligation, these students revealed in their faces determination, eagerness, and idealism such as few ever behold, which promised things immeasurable. No one could then suspect how quickly they were to be plunged into terrible strife with an unparalleled epidemic, that many would themselves be recipients rather than givers of tender nursing care, and that within a few weeks five dearly beloved ones of the group would have made the supreme sacrifice as a result of unfaltering performance of duty. By a process of gradual approach and progressive experience the young soldiers from the preliminary training of Plattsburg and cantonment were moved into the trenches; but this fall hundreds of inexperienced recruits were placed at once on the hospital firing line. Conditions varied in different hospitals. In some, the relatively small number of influenza patients

*From The Thermometer (published occasionally by graduates of the Vassar Training Camp).

made it possible to save probationers from serious exposure, but in others where law, tradition or public obligation compelled the acceptance of every patient, even though this meant two or three times as many as there were beds so that patients were placed on chairs, on the floor and even on shelves, such isolation was impossible. When absolutely untrained volunteers were giving their services in a catastrophe, it was impossible to exempt those who had had some training and had joined the ranks of nursing. To the credit of the Vassar Camp group it should be added that not only did they not expect exemption, but that in cases where it was offered them it was refused without hesitation. It may be said without exaggeration that never before did probationers begin their training with such appalling and discouraging experiences as did those of this last autumn, among whom were numbered those from the Training Camp.

Another unexpected test of resolution and persistence was the ending of the war. The motive actuating a large number of those who entered the Camp was a desire to do war service. Even after the summer's emphasis upon the need of public health nursing and the opportunities it presented, it was the war need and the possibility of service overseas which bulked large with many. In less than two months this inducement to continue was gone.

How did these two unforeseen influences—influenza in October and peace in November—affect the group? It would not have been strange if they had caused depletion in numbers—and they did have their effect. Not only did five lose their lives because of influenza, but a number of others have had health so seriously affected that temporary or permanent abandonment of plan was necessary; and, in a number of cases, illness or death in the home circle compelled withdrawal. The coming of peace brought the possibility of marriage to a number whose fiancés were in service; and a few felt no interest in nursing apart from its war aspects. The results were, however, varied in different hospitals, from no withdrawals or only one or two in some, to serious inroads on the groups in the others.

From answers to letters sent between Christmas and New Years to every hospital in which even one student from the Training Camp became enrolled the following statement is possible. Four hundred thirty-five entered the Training Camp in June, and the most unexpectedly large number of 418 remained through the summer, nearly all departures being due to illness of the student or her family. . . . Only a very few failed deliberately without good reason to meet the obligations they had assumed. . . . According to official information, 399 have entered their hospitals, including one or two who are down for January acceptance. Of this number five have died, three have been rejected by their hospitals, and one hundred four have resigned. The causes of resignation have not been obtainable in every case, and in some it has been a combination of family pressure, end of the war, and lack of interest in nursing. . . . There were remaining in nursing work at the end of December in the hospitals which they entered, as nearly as I can ascertain, 287. However, two of those withdrawn have entered other hospitals, making the total 289 who were still on the list of pupil nurses. Further one other who withdrew is the very efficient social director of the training school she entered and another transferred from nursing to training in dietetics in the same hospital. If we add these and those who took up the study of medicine and other health work, there are almost three hundred still in health work, i. e., at the end of December according to my count 298. . . .

Is this percentage of withdrawals large or small compared with that prevalent in hospitals? From what superintendents of nurses have told me or written me, it compares favorably with what occurs in some hospitals and unfavorably with others.

How have those who entered the hospitals acquitted themselves? Almost universally they have lived up to the highest expectations; and to me, more or less in touch with most of the groups through students and directresses of nurses, it has been most gratifying and inspiring to hear of unfaltering effective service. Space allows me to quote only two superintendents of nurses, but they represent two cities hospitals in which conditions were most disheartening. "They accepted the responsibility in a perfectly splendid spirit and have rendered wonderful service. We do not know what we should have done without them at this time." "I was obliged to put them on duty where I would not ordinarily put young nurses. They have taken hold of the work with vigor and enthusiasm and have been a world of help. Today [October 7th] they are doing work that ordinarily I would not exact of pupils until they had been in the school for six months. No greater contribution has ever been made to the nursing service of this hospital than the advent of these women, because never in my experience has there been such a difficult time as at present. There has been no panic among your students and they have worked on with just as much courage as if they had been veterans. No greater help could have been given us than has been furnished by these students."

I wish space allowed me to give in full a letter from one in a hospital in which conditions have been considered in the past very severe. One or two sentences I must quote: "I shall never regret having come into this work, for I love it and I feel as if I were worth while. I wouldn't drop this work for anything. . . . It gives such a sense of responsibility, even of awe, to go into that ward at night and find those patients watching for me and to know that all those helpless men are depending upon me and believing in my ability to help make them well again. . . . I was taken sick and received the best of care. Now I know how it feels to lie there in bed and I can feel for these others who lie there while I am up and getting stronger and fatter every day while they get weaker and thinner." Many others of the relatively few who have had some reason to write or have kindly done so without one, have given similar testimony. . . .

The chief cause of unrest has been the long day, which, as one superintendent said, is devitalizing. One student observed rightly: "It means that much we gained in college is slipping away from us—interest in music, art, literature—for we are too tired when we come off duty for anything but bed." . . . Practically all superintendents of nurses wish the eight-hour day and progress toward it seems certain soon. There is difference of opinion as to the best method of securing it, but I am strongly of the opinion that only state legislation will secure it, except in a few hospitals. The time is ripe for a campaign and unless it is attained soon, it is futile to expect many college women to enter nursing or to urge many who are now in to remain. . . . It is a condition, not a theory, that confronts us. In certain hospitals there must also be some rearrangement of work.

I think that the nurses from the Training Camp have been very patient with hard work even of a menial kind and with the inevitable disagreeable duties connected with nursing; but they have rightly been impatient with the twelve-hour day, with scientific instruction poor in quality and not recognizing their previous attainments, and

with bad organization when existent in training school or in the actual administration of hospital wards. Intelligence, superior to that of those less fortunate in education, and experience in organization and administration, which many of them had had in other fields, have made them quick to detect defects which pupil nurses have previously taken for granted. Here is a potential force for progress and improvement which hospital authorities should gladly welcome. . . .

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"PEACE HATH HER VICTORIES"*

Dr. Winslow's Advice to the Students of the Vassar Training Camp

I have thought very often of the graduates of the Training Camp during these past months which have been so full of grave anxiety for all who are dealing in any way with the problems of disease. I have thought of how eager you all were for a part in the great conflict abroad, how tame and dull it seemed to have to go first into civilian hospitals at home, and then how, a few weeks only after the pleasant cozy life at Vassar ended, you found yourselves in those same civilian hospitals hurled into the very thick of the most desperate conflict against disease this continent has ever known. Everyone who can claim the smallest share in you is very proud of the way you met the challenge. You gave your youth and your strength, and some of you gave your lives. You know now that peace hath her victories as well as war.

Since this special crisis passed you have had to meet a test that seems to many of you even more arduous—an exhausting round of uninspiring and, in large part, unimproving labor. We hear that some who fought gallantly through the epidemic are finding the normal conditions of the training school too onerous to be borne.

I would not have you satisfied with the conditions that still obtain in most nurses' training schools today. I hope you will feel a keen indignation, for yourself and for your fellows, against long hours and low standards and slipshod instruction, if such there be. I hope you will fight these evils of your profession vigorously and effectively after you have gone through and conquered in spite of them. Meanwhile do not forget that the leaders of nursing today, Miss Nutting and Miss Wald, Miss Goodrich, Miss Delano, and the rest, survived training schools compared to which those of the present time are paragons of excellence. Today these women and a host of others are working with might and main to bring the training school up to the standards we all of us desire, and during your two years I believe you will see the fruits of their efforts in every hospital in which the standard of the Training Camp has been set up.

You women of the Camp recognized, and rightly recognized, that during the war the highest service you could render was the care of the wounded and the safeguarding of the lives of the soldiers overseas. It seems to me equally clear that you can have no higher call in peace than to the care of the wounded in life's daily battles. My wish for you in the New Year is that you may have strength to "carry on," to endure without acquiescing in what is inadequate, to take full advantage of the opportunities to serve and to grow in power for service, opportunities that are present under the most disheartening conditions—to persevere in your chosen work till you are fully qualified to meet the great need that is calling for you outside the hospital walls.

*From The Thermometer (published occasionally by graduates of the Vassar Training Camp).

Gynecology for Nurses

This subject is treated in a most concise, yet clear and direct, manner. Owing to its convenient size the volume serves well as a hand-book for the ready use of nurses on the wards and in the operating room. The many illustrations are very clear and comprehensive and help tremendously in presenting the essentials in gynecological nursing technique in a concrete way.

Reference Hand-Book of Gynecology for Nurses. By Catherine Macfarlane, M.D., F.A.C.S., gynecologist to the Woman's Hospital of Philadelphia. Cloth, pp. 151, with 71 illustrations, $1.50. W. B. Saunders Company, Philadelphia, 1918.

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A Practical Reference Book on Chemistry and Toxicology

This book serves as a good reference book in connection with the study of solutions and materia medica. It gives the nurse a practical understanding of the chemical composition of various drugs, and it furnishes a valuable aid in clarifying the chemical principles involved in the study of suitable antidotes as a measure of treatment in different kinds of poisoning by drugs.

The subject is presented in a concise and comprehensive manner.

Chemistry and Toxicology for Nurses. By Philip Asher, Ph.G., M.D., M.S., dean and professor of chemistry at the New Orleans College of Pharmacy, New Orleans, La. Cloth, pp. 195, $1.50. W. B. Saunders Company, Philadelphia, 1918.

* * * *

Red Cross Nurse Decorated With Distinguished Service Cross

"For extraordinary heroism against an armed foe" Miss Beatrice Mary MacDonald, an American Red Cross nurse assigned to the Army Nurse Corps, has been decorated with the Distinguished Service Cross by Secretary of War Baker. Miss MacDonald, whose home is New York City, is said to be the first woman to receive the highest award for bravery outside of the Congressional Medal which the government has to bestow.

Miss MacDonald, as chief nurse of the Presbyterian Unit, which left New York in 1916, was in an evacuation hospital immediately behind the lines when the place was bombed by German aeroplanes on the night of August 17, 1917. She displayed remarkable courage during the bombardment, remaining in the operating room until a fragment of shell struck her in the face, destroying the sight of her right eye.

General Pershing, in a personal letter, commended Miss MacDonald and Miss Eva Jane Parmelle of Springfield, Mass., another nurse who remained at her post after being wounded in a German air raid. Both nurses have been recommended for the British Military Medal "for exceptional bravery," and Miss MacDonald has received the Royal Red Cross decorations from the British authorities.

Miss MacDonald was formerly office secretary to Dr. George E. Brewer of New York. He had charge of the Presbyterian Hospital unit and is now a colonel in the Army Medical Corps.

Be quiet at night. Place a towel under basins and glasses before putting them down.—Marie Robertson, R. N., in The Nurse.

Dimity bedspreads which have a blue stripe in them are distinctive for use in nurses' home and are easily sorted out of the hospital laundry.

OCCUPATIONAL THERAPY, VOCATIONAL RE-EDUCATION AND INDUSTRIAL REHABILITATION

Conducted by DOUGLAS C. McMURTRIE, *Director Red Cross Institute for Crippled and Disabled Men* and ELIZABETH G. UPHAM, *Advisor in Occupational Therapy, Milwaukee-Downer College.*

ACTIVITIES TO MEET PATIENTS' NEEDS

Work of Occupation Department Which Aims to Study and Solve Problem of Each Individual Patient—Affiliation with School of Nursing Valuable

BY WINIFRED BRAINERD, Director, Department of Occupation Therapy, Presbyterian Hospital, Chicago, Former Director of the Industrial Department of the Clifton Springs Sanitarium, Clifton Springs, N. Y.

The industrial department at Clifton Springs Sanitarium was opened in December, 1912. It was housed in two rooms, one in the basement of the main building and one on the second floor of the annex. The room in the annex was used for leather work and basketry. The room in the main building was used as a weaving room and contained four large looms for weaving rugs, a four-harness loom for pattern work, and two smaller looms for making table runners, scarfs, work bags, etc.

In 1914, owing to an increased demand for rooms in the annex, all of the work of the department had to be transferred to the one room in the main building. Again, in the early part of 1917, because of the need of greater space for the laboratories, the department moved, this time to the gymnasium. The gymnasium afforded room for expansion, and carpenter benches, with tools for woodworking, were added to the other equipment.

Fig. 1 Self-forgetfulness and exercise at his workbench brought back the motor functions to this patient's left arm.

At the present time, broadly speaking, the work of the department is divided into two classes, work in the shop or garden and work in the patients' rooms. The shop work may be classified under six heads: woodworking, basketry, weaving, leather work, art work and, simple metal work. It might seem that woodworking would appeal more to men than to women, but such has not been the case. The very novelty of handling a saw instead of a bread knife, and a mallet and chisel instead of a tack hammer, seems to have a certain fascination that produces women carpenters. The projects worked out have been varied. Individual needs and preferences have

Fig. 2. Busy brains and hands combined to fashion these creatures in the industrial department of Clifton Springs Sanitarium.

governed the choice of project in each case. A man made a sewing screen for his wife, stitching the lining on a sewing machine in a way that he said Mrs. C. would never believe. Women have made taborets, book shelves, swifts to wind yarn, magazine racks, plant sticks, etc. Toys for children have been popular, animals on wheels, kites, jumping jacks, bows and arrows, etc. The shop has been a hospital for golf sticks, tennis rackets, trunk trays, shoe heels, and even for jewelry.

This spring the director of the shop was able to buy a load of slabs from a near-by farmer, and the possibilities in those slabs have been almost endless. By the use of enamel cloth, tin cans, and test tubes, window boxes, fern dishes, bud vases and all sorts of flower holders have been made. Enough money has been realized from the sale of these articles to purchase the tools with which to work the shop garden and to buy the seeds the shop needed to furnish.

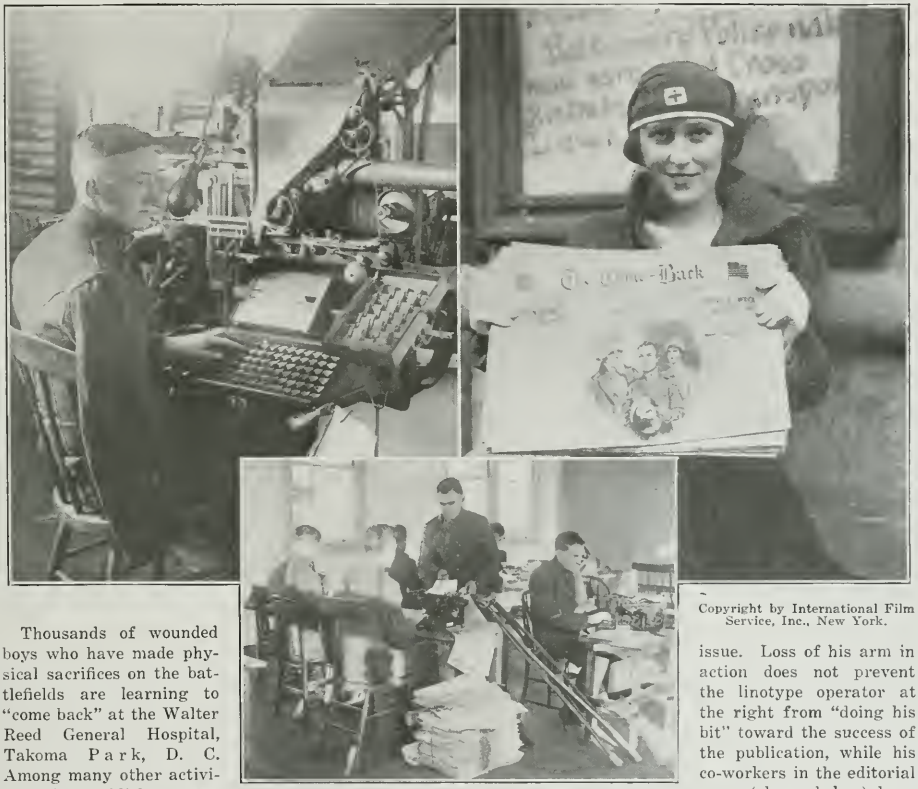
The scope of the room work has been considerably enlarged. Again, the one aim has been to meet individual needs. On one occasion the occupational director was asked to visit a room patient of the blasé bored type, to whom nothing reasonable could be expected to appeal.

She met the reception she anticipated. Mrs. X. was not interested. Finally she was asked if she had no relative or friend for whom she would like to make something. Yes, she did have two small nephews, but nothing short of a steam engine would appeal to them. The story of how the steam engine was made in the patient's own room from a tin can, a knitting needle, some bicycle nipples, tin, wood, screws and paint is a matter of history. The attending physician's comment was that, during the time Mrs. X. worked on the engine, she lived the sanest life he had ever known her to live.

What is known as "tapestry basketry" has been a very satisfactory form of work for bed patients, because so few materials are needed and because they can be easily managed in bed. Only a needle, some featherbone and mercerized cotton or silk are necessary. The work is done in the same way that baskets are made from raffia over reed, the featherbone replacing the reed and mercerized cotton or silk replacing the raffia. Four strands of cotton or silk make a convenient number with which to work. This kind of basketry is especially nice for work bag bottoms, using colored silks or ribbon for the tops of the bags and twisting the draw strings from the cotton or silk used to make the bottom.

Thin woodworking is a form of occupation that has appealed to many of the room patients. For this work a simple equipment, consisting of a small block plane, a coping saw, try square, sloyd knife, saw board, clamp, hammer, brads, etc. is necessary. The wood used is clear-grained basswood, one-eighth inch to one-fourth inch in thickness, and cut in uniform lengths of 4 inches, 6 inches and 8 inches. One of the most useful models patients have made is a watchstand, by which an ordinary watch may be converted into a bedside clock. Picture puzzles, toys, cut-up maps, etc., are made with the same equipment. One man, a Presbyterian minister, whittled out and painted a totem pole that looked as if it might have come from Alaska. He was very proud of it and used it as a mural decoration in his room.

As another example of meeting an individual need, a



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Thousands of wounded boys who have made physical sacrifices on the battlefields are learning to "come back" at the Walter Reed General Hospital, Takoma Park, D. C. Among many other activities, they publish a newsissue. Loss of his arm in action does not prevent the linotype operator at the right from "doing his bit" toward the success of the publication, while his co-workers in the editorial room (shown below) have entirely forgotten wounds and battlefields in the stress of preparing the forthcoming issue. Next month Major B. T. Baldwin, director of occupational therapy at the Walter Reed General Hospital, will tell how these boys are helped to make "coming back" a success.

entirely forgotten wounds and battlefields in the stress of preparing the forthcoming issue. Next month Major B. T. Baldwin, director of occupational therapy at the Walter Reed General Hospital, will tell how these boys are helped to make "coming back" a success.

work bench fastened to the foot of an iron bedstead may be mentioned. The bench consisted of pieces of board, clamped together to support the top, and was as firm and solid as a regular work bench. It was fitted with a vise and the ordinary tools for woodworking plane, square, saw, hammer, marking gauge, etc. The man who used it was a physician convalescing from a serious head operation—parietal decompression. He had complete sensory loss in the left arm and hand, and, although the motor functions were retained, he had, on account of the sensory disturbance, practically abandoned the use of the extremity. He had some difficulty in walking and was very apprehensive lest he should completely lose the use of the left leg. He started with a few minutes work each day, gradually increasing the amount until his interest in what he was doing banished the old dread, and now he walks four miles without difficulty. As a result of his exercise at his bench, he uses the left hand much more freely than formerly.

Water-color work has been a good form of occupation for those who could not come to the shop. Fitting up a water color kit that has a bit of the real thing about it is not a difficult matter. A block clamped to the upper side of the bedside table holds the water pan and paint box in place even when the table is tilted to an angle to accommodate the worker. Birthday cards, Easter cards, Christmas cards and New Year's cards have been tinted very creditably. One patient sold six dollars' worth at the nurses' bazaar. It is a real satisfaction to do something that has market value.

The shop maintains a traveling library of art catalogues, garden catalogues, magazines, picture puzzles, conundrums, etc., which it circulates among the room patients. A typewriter, recently acquired, has proved to be a valuable adjunct. By means of carbon copies the typewriter makes it possible to pass along choice bits from the classics and current literature, information about flowers and birds, etc., and sometimes, when it is advisable, a hint about bracing up or "playing the game." Many a patient has said that the material he has collected in this way will be added to a scrapbook he already possesses or will form the nucleus of a scrapbook to be.

Interest in things out of doors has been stimulated by bringing to the room-patients the spring buds and flowers as fast as they come along. The skunk cabbage, the first flower of spring, is generally unknown and creates not a little amusement. It is served, if you please, on a slab "plank"—a block of slab with a large water-tight hole bored in the top. Enough earth to anchor the plant is put in the hole, and a single purple spathe, guarded by a roll of green leaves and ringed about with moss, the whole surrounded by the gray bark of the slab, makes an artistic combination hard to beat. The other flowers have been taken in turn—bloodroot, trillium, wild ginger, bellwort, foam flower—and now jack-in-the pulpit is preaching his message of cheer. Patients who are to be here for some time have real window boxes made from slabs, into which the flowers are transplanted and bloom in veritable tangles.

The social life of the department has not been entirely neglected. The most elaborate affair was a tea party early in April, to which each worker in the shop brought as many guests as he wished. In this way, each one felt partly responsible for the success of the venture. The shop was decorated with flags and flowers, and a victrola furnished the music. Patients served refreshments to about seventy-five guests, and their one query was, "When may we do it again?"

The industrial denartment is closely affiliated with the school of nursing. Each nurse in training serves a term of at least four weeks in the shop. She masters the fundamental principles of five kinds of work, which she may choose. She compiles a notebook which contains outlines of the work she has done, notes on the therapeutic value of occupation, a bibliography of books and articles on occupation therapy, a bibliography of books on handicraft, and a list of tools, appliances, and supplies for hand work and where they may be obtained. She starts a scrap book of clippings, pictures, etc., that might be helpful in this work. She has actual experience in teaching the patients. Her teaching is carefully observed, and suggestions are made to improve and strengthen it. At the end of her term in the shop, she takes an examination in occupation therapy and receives a mark for her work, as she does for any other course.

The department has a vision. A separate building—suited to the purpose, adequate to the needs of the work, and artistic—a fireplace, a woodpile and an axe, music, and a garden adjacent, plus the regular workshops, will make up the plant. Other lines of work, such as pottery, printing, bookbindery, photography, etc., can then be added to the present activities.

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The American Journal of Care for Cripples Becomes a Monthly

The *American Journal of Care for Cripples*, which is the only special periodical in English on provision for the disabled, became a monthly with its January issue, according to announcement by its editor, Douglas C. McMurtrie. Although dealing extensively with the rehabilitation of the invalided soldier, the *Journal* is not a war product, as it is entering upon its eighth volume. It will contain in the future the studies, translations, and abstracts produced by the research department of the Red Cross Institute for Crippled and Disabled Men, which material has hitherto appeared in a special series of publications. The *Journal* also continues as the official organ of the Federation of Associations for Cripples.—*New York Evening Post*, February 22, 1919.

Victory

He was a "blue baby"—and there wasn't much chance for him, the doctor said. "Nurse White" had long been promised that hers was to be the privilege of naming him, and she had a name carefully selected which would meet any emergency. "But it won't make any difference what you name him now," sighed the weary mother.

But "Nurse White" only smiled cheerily. "Oh, yes, it will," she said. "I am going to name him so that he just *must* live, and grow strong and well." Then, with the lightest touch on the little head, "I name you Victor," she pronounced, and, smiling again into the mother's eyes, "He will be a *victor*—he will *live!*"

And the best part of the story is that she was right.—*New York Nursery and Child's Hospital.*

Make an Asset of Your Switchboard

The importance of the position of the telephone operator cannot be magnified too highly; it is as important as that of the receiving clerk if not more so, for its duties are very complicated. The operator must give out authoritative information only; she must be prompt and efficient; consequently her hours should not be long, so that she may always be alert and in a pleasant frame of mind. Do not be satisfied with the ordinary service; get an experienced operator.

QUERIES AND ANSWERS

Placing Hospital Superintendents Under Bond

To the Editor of THE MODERN HOSPITAL:

Is it the custom of hospitals to bond their superintendents? I am in charge of a small institution of 100 beds and a training school of 30 pupils, and this subject is under discussion.

SUPERINTENDENT NEW YORK HOSPITAL

It can scarcely be said to be *customary* for hospitals to bond their superintendents. Where financial responsibility rests on the superintendent, however, the practice is a very desirable one; in fact, many superintendents insist on being bonded for their own protection as well as for that of the institution with which they are connected.

Location of Laboratories and X-Ray Apparatus

To the Editor of THE MODERN HOSPITAL:

Do you think it best to locate laboratories and x-ray apparatus in the basement?

A TECHNICIAN

It is immaterial whether x-ray apparatus or laboratories are placed in the basement, provided they are placed so as to be accessible and not merely in an out-of-the-way corner which is chosen simply because it can not be used for any other purpose.

Inclines Versus Stairs

To the Editor of THE MODERN HOSPITAL:

Are inclines superior to stairs, especially if an elevator is not contemplated?

AN EASTERN HOSPITAL OFFICIAL

If the architecture of the building will lend itself to the use of inclines, they are superior to stairs, provided a grade of from one to six or, at the most, one to ten can be obtained. Any steeper incline than the latter is absolutely impractical.

Caring for Hospital Employees in Times of Illness

To the Editor of THE MODERN HOSPITAL:

1. What are the duties of a hospital in caring for the officers of the institution when ill? Also, the employees?
2. Are they allowed full pay while off duty?
3. Is it customary to make a reduction of hospital rates to members of a hospital board?

A SUPERINTENDENT

1. It is difficult to answer this question in the abstract. It is customary in most hospitals to care for the officers and domestics and their families free of charge. Some institutions, however, draw a very definite line on this subject: members of the staff are cared for without charge—likewise, domestics who have been in service over three months; members of boards of trustees pay full rates for their families and themselves, and members of the families of officers are charged like other patients. It would be necessary to know something about the financial status of the hospital and the actual relation of the officer or board member to it before attempting to prescribe the duties of a hospital toward these persons.

2. Sick leave should be allowed employees who have served the institution for a year or longer; it is customary to continue pay for a period which varies with the previous period of service, but not to continue indefinitely. Some hospitals make a reduction of 10 percent to physicians, ministers, and board members. As indicated in answer to question one above, other hospitals make no special rates.

Vacations for Hospital Employees

To the Editor of THE MODERN HOSPITAL:

What is the usual length of vacation with pay allowed to bookkeeper, bacteriologist, and dietitian?

A HOSPITAL SUPERINTENDENT

To bookkeepers, bacteriologists, dietitians, and others holding responsible positions, who many times work long hours, holidays and Sundays should be allowed, at least, two weeks' vacation with pay the first year, and three weeks to one month thereafter. Hospital service is continuous; the doors are never closed, and therefore its employees are compelled to give more time and closer attention to duties than in mercantile life. A good vacation with pay means better service.

BOOKS RECEIVED FOR REVIEW

Instincts in Industry. A Study of Working Class Psychology. By Ordway Tead. Cloth, pp. 222, $1.40. Houghton Mifflin Company, Boston, 1918.

The Nurse's Service Digest. A Manual of Nursing. By Laurence Humphrey, M.A., M.D., M.R.C.P., M.R.C.S., teacher of pathology and examiner in medicine, University of Cambridge, and W. Myron Reynolds, M.D. Cloth, pp. 397, with 86 illustrations, $1.50. George Sully & Co., New York, 1919.

The Human Machine and Industrial Efficiency. By Frederic S. Lee, Ph.D., LL.D., Dalton professor of physiology in Columbia University, president of the American Physiological Society, and consulting physiologist to the United States Public Health Service. Cloth, pp. 104, illustrated, $1.10. Longmans, Green and Company, New York, 1918.

The Disabled Soldier. By Douglas C. McMurtrie, director Red Cross Institute for Crippled and Disabled Men, and president Federation of Associations for Cripples. With an introduction by Jeremiah Milbank, vice-chairman, committee of direction, Red Cross Institute for Crippled and Disabled Men. Cloth, pp. 232, illustrated, $2. The Macmillan Company, New York, 1919.

Forty-fifth Annual Session of National Conference of Social Work. Proceedings of the National Conference of Social Work, formerly National Conference of Charities and Corrections, Kansas City, Mo., 1918. Cloth, pp. 693, $2.50. Rogers & Hall Co., Chicago, 1918.

Chemistry and Toxicology for Nurses. By Philip Asher, Ph.G., M.D., M.S., dean and professor of chemistry at the New Orleans College of Pharmacy, New Orleans, La. Cloth, pp. 195, $1.50. W. B. Saunders Company, Philadelphia, 1918.

Roentgenotherapy. By Albert Franklin Tyler, B.Sc., M.D., Professor of Clinical Roentgenology John A. Creighton Medical College; Attending Roentgenologist St. Joseph's Hospital, Omaha, Neb. Cloth, pp. 156, 111 illustrations, $2.50. C. V. Mosby Company, St. Louis, 1918.

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Hospital Accounting and Statistics. Compiled and arranged by William V. S. Thorne, Treasurer Presbyterian Hospital, New York City; Chairman of the Executive Committee of the Woman's Hospital in the State of New York; Member of Board of Directors of the Manhattan Maternity and Dispensary. Cloth, pp. 119, with illustrations, $1.50. E. P. Dutton & Co., New York, 1918.

BULLETIN OF THE AMERICAN HOSPITAL ASSOCIATION

Offices:
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308 Anisfield Building, Cleveland, Ohio
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308 Anisfield Building, Cleveland, Ohio
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Institutional Membership

PLEASE SEND IN YOUR APPLICATION

Since publication of the last bulletin of the association, applications for institutional membership have been received from the following, making eighty-four applications to date: All Saints Hospital, Fort Worth, Texas; Broad Street Hospital, Oneida, N. Y.; Binghamton Hospital, Binghamton, N. Y.; Children's Hospital, Philadelphia, Pa.; Columbia Hospital, Milwaukee, Wis.; Children's Free Hospital, Detroit, Mich.; Elkins City Hospital, Elkins, W. Va.; Hackley Hospital, Muskegon, Mich.; Hahnemann Hospital, New York City; Kensington Hospital for Women, Philadelphia, Pa.; City Hospital, Louisville, Ky.; Newell & Newell Sanitarium, Chattanooga, Tenn.; Olean General Hospital, Olean, N. Y.; Oil City Hospital, Oil City, Pa.; Presbyterian Hospital, New York City; Rochester Homeopathic Hospital, Rochester, N. Y.; St. Luke's Hospital, San Francisco, Cal.; Woman's Hospital, New York City; York Hospital, York, Pa.

Owing to the inability of Dr. John M. Peters to serve as chairman of the membership committee, it has not been possible to secure committee action on the applications. At the request of the president, Dr. S. S. Goldwater has agreed to act as chairman of the committee. The applications will be placed in the hands of the membership committee immediately and, pending the printing of the formal certificates, temporary certificates will be forwarded to the hospitals accepted by the membership committee as institutional members.

Government Control of Telephones

The communication to the hospitals concerning telephone rates, charges, and discounts, published in the February bulletin of the association, has brought numerous replies. Replies have been received from hospitals in twenty-two states. The letter was not sent to all of the hospitals in the association. The secretary would be glad to have information from other hospitals on this important question.

The information received so far, at least warrants a request for a hearing on the question of standardization of telephone service to hospitals. The secretary has been informed by the solicitor of the Postoffice Department that correspondence on this subject has been referred to Mr. Union N. Bethell, chairman, U. S. Telegraph and Telephone Operating Board, 195 Broadway, New York City, for consideration and such recommendation as he may have to make in the premises—also, that request for hearing on the matter and any other communications on the subject from this office be addressed to him. If request for hearing is made and granted, the hospitals will be informed immediately.

New State Hospital Association

The hospitals of Illinois have formed an organization under the name of "The Illinois Hospital Association." The purpose is to promote the general welfare of the sick. Rules and regulations were adopted February 7, 1919. The officers of the association are: President, M. L. Harris, M.D., Policlinic Hospital, Chicago; vice-president, Wm. L. Noble, M.D., West Side Hospital, Chicago; secretary, E. T. Olsen, M.D., Englewood Hospital, Chicago; and treasurer, C. O. Young, Washington Park Hospital, Chicago. The association is actively interested in certain legislative proposals now before the Illinois legislature.

Special Letter on Bulletins of the Association

The following letter has been sent to officers, committee members, and chairmen of the sections of the association. Opinions on the subject matter are desired from members of the association. Please write the secretary your frank opinions and criticisms.

"I want your advice about the bulletin of the American Hospital Association. In general, I would like to know what you think of the bulletins as published in THE MODERN HOSPITAL. Perhaps I can indicate what I have in my mind better by a series of questions, which I would be glad to have you answer as soon as possible. Please write me a letter, and be entirely frank in your criticisms and advice.

"1. Do the bulletins contain the right kind of data or information?

"2. Are the bulletins gotten up as they should be? Are they too long? Too short?

"3. Should the bulletins be kept within narrow limits—that is, confined almost exclusively to proper hospital subjects, or should they deal with public health matters in general?

"4. Should the same type of bulletin be prepared for THE MODERN HOSPITAL, *Southern Hospital Record*, and *Hospital Management?*

"5. Should we endeavor to have bulletins especially prepared for the medical and nursing journals of which there are quite a number?

"6. Should the American Hospital Association seek eventually to own or control an official organ?

"One difficulty I find in preparing the bulletins for the association is that THE MODERN HOSPITAL contains each month an enormous amount of general and special information of interest to hospitals. It contains regular articles, special bulletins from the various departments, and other public health organizations; and it contains practical hints and advice to hospital superintendents. Obviously our bulletin should not seek to duplicate such items. What, then, should the regular bulletins of the American Hospital Association contain? Any advice or assistance you can give will be appreciated."

Legislation

The March bulletin of the association contained a review of the public health legislation recommended by the governors of thirty-four states in their messages to the legislature—also, a statement of the important specific recommendations made. Since then a bulletin has been sent by the legislative committee to members of the association and to hospitals in the various states, calling their attention to these maters. For the benefit of the members of the association the form letter is contained in this bulletin, with the exception of the paragraph referring to the specific recommendations.

"The legislature in your state is in session. The governor's message to the legislature has been read and published. It contains important public health suggestions

and recommendations. Hospitals and dispensaries should be much interested and concerned in these recommendations.

"The legislative committee of the American Hospital Association urges your active interest in the governor's recommendations and in important public health measures now before your legislature. . . .

"Hospitals and dispensaries are important public health agencies. They should be important factors in shaping public health legislative policies. Your interest at this time may vitally affect the public health of your state. At the same time, the interests of the hospitals and dispensaries must also be considered and protected. Do not wait until the legislature has adjourned. The time to act is now. Do not hesitate to call upon this legislative committee if it can be of assistance."

Hospitals and the Federal Income Tax

The attention of the hospitals is called to the Federal Income Tax law, which requires every employer to report payments of salary, rent, or board furnished to any of its employees where the total of such payments to any individual amounts to $1,000 or more during the calendar year. If board and lodging is furnished employees and is valued at $400 per year, the hospital must report amounts paid to any employee whose salary is $600 or more in addition to the board and lodging during the year January 1 to December 31, 1918. Information must be reported to the United States Internal Revenue Department on Form 1096, revised February, 1919.

The form states that this return must be made on or before March 15, 1919, but it is understood that the department has granted an extension to May 15. Failure to make the return is subject to penalty. Hospitals are urged to give this matter careful attention.

Federal Appropriations to Provide Hospital and Sanitarium Facilities for Discharged Sick and Disabled Soldiers, Sailors and Marines

On March 1, during the closing hours of the sessions of the sixty-fifth Congress, the conference report on the Senate amendments to House Bill No. 13026 to authorize the Secretary of the Treasury to provide hospital and sanitarium facilities for discharged sick and disabled soldiers, sailors, and marines was adopted. In all, $9,050,000 was appropriated. The patients to be admitted to the hospitals provided under this act are not limited to soldiers and sailors, but include nurses (male and female), patients of the War Risk Insurance Bureau, civilian employees entitled to treatment under the United States Employees Compensation Act, and many others.

Hospitals with such other buildings and land as may be required in several military camps located in different parts of the country are transferred to the Public Health Service. The act authorizes the purchase and lease of hospitals and equipment in several states and authorizes the leasing of any existing hospitals or sanitaria for immediate use, as well as the construction of such new hospitals or sanitaria as may be necessary.

Under the provisions of this act, the Federal Public Health Service may proceed with a most comprehensive hospital program. Members of the association are urged to familiarize themselves with the provisions of this act. The secretary would be glad to furnish members with copies of the act upon request.

1919 Convention

TENTATIVE PROGRAM FOR THE OUT-PATIENT SECTION—MICHAEL M. DAVIS, JR., BOSTON, CHAIRMAN

The committee on dispensary work, together with the officers of the Out-Patient Section, held a meeting in New York City at the end of January and discussed, among other matters, the organization of a service bureau within the American Hospital Association, such a bureau to provide advice and consultative service in the establishment, organization, and management of dispensaries, and in investigation and advice upon the community relations of hospitals. It was the general feeling that there was a demand from various institutions in different parts of the country for information and advice concerning out-patient clinics, and also for investigation concerning the needs of a community for various types of hospital service, the extent of the need for clinic service and the relation of hospitals and dispensaries to other organizations, such as health departments, social service, and visiting nursing. It was the plan of the committee to work out some definite suggestions by which such advisory and consultative service might be provided for the members of the association and others, and to lay such a plan before the officers and trustees.

The meeting of the committee on dispensary work, with the officers of the Out-Patient Section, developed suggestions for a program at the next meeting of the convention. It was believed that two sectional meetings might well be devoted to the general subject of dispensary work, the following topics being suggested:

First Session: (1) Dispensary work in France, Italy and Belgium under the auspices of the Red Cross and other American organizations; (2) the study of dispensaries in New York City now under way under the auspices of the Rockefeller Foundation.

Second Session: (1) Pay clinics, their value to the hospital, and their relation to the medical profession (presented in two papers—one dealing with the general aspects of the topic, and the other, with the recent development of pay clinics in a number of cities).

Each section of the association is allowed one paper at a general meeting. The subject of the relation of the dispensary to health insurance was suggested as timely and suitable for a paper to be presented at a general session, at which the subject of health insurance would doubtless be discussed from many angles.

THE GENERAL PLAN OF MEETINGS OF SECTIONS OF THE AMERICAN HOSPITAL ASSOCIATION

It was the sense of the committee that at meetings of the sections there should be normally two papers, not exceeding twenty minutes in length, and, if there is an additional paper, the papers should be cut to fifteen minutes each. One person should be announced on the program as opening the discussion of each paper, the remainder of the time to be left for informal discussion.

The committee suggests that the meetings of the Out-Patient Section should not take place at the same time as the meetings of the Social Service or Administrative Sections, believing that a combination with the Nursing, Dietetic or Construction sections, for instance, would mean that fewer persons would wish to attend two section meetings at the same time.

SUGGESTION FROM SECTION ON HOSPITAL CONSTRUCTION—DR. GEORGE O'HANLON, NEW YORK, CHAIRMAN

The Section on Hospital Construction of the American Hospital Association considers it advisable to urge upon those hospitals which have building improvements or new buildings in contemplation, the desirability of taking the initial steps at this time. The work involved in deciding all the details of a hospital building, if the details receive the consideration required to approach perfectly satisfactory results, will take much more time than is apt to be

foreseen by those who have not been through a building operation.

Even if the hospital authorities have a quite definite understanding of their requirements, and the architect, or engineer, is entirely familiar with hospital practice, as should be the case, much discussion will be found inevitable before a definite scheme can be arrived at which incorporates as many of the needs of the hospital as possible and, at the same time, comes within the limit of the funds available. This discussion can, and usually does, run into a matter of two or three months, or more, following which from two to six months, depending upon the extent of the work, will be consumed in preparing adequate drawings and other data required for contractors' estimates.

The uncertainty as to the cost of building has held many much needed hospital projects in abeyance. The wisdom of delaying these projects beyond this summer is questionable. While it is true that a higher scale of building costs prevails, it is relative to a higher scale of the cost of labor and all commodities and must prevail for a number of years, until the waste of war has been made up. The best informed opinion is that the maximum possible recession in building costs will be 20 percent in five years, a considerable part of which is expected this year, before the amount of building becomes large, and before the demand for materials for foreign reconstruction has become a factor.

The Federal government, in a well organized movement, is urging the public to resume building, and the result of this movement is bound to stimulate building activity, some builders being compelled by patriotic motives, but more of them by the fear of having to build in a time of abnormal activity.

This year is likely to develop as the best of several years to come in which to place contracts, and immediate preparation is necessary to be in the position to place contracts this year. In the event that new factors appear to make it advisable to hold back the placing of contracts, it is still advisable, as the committee recommends, to have the preliminary work begun at once, so that any opportunity in the building market may be taken advantage of.

Hospital Positions Wanted

The association has been requested to assist the following applicants in finding hospital positions. Information as to applicants will be forwarded by the secretary on request.

The chief of the laboratory service in a United States General Hospital, graduate in medicine, commissioned in the Medical Corps as captain, desires to practice medicine in Seattle, Wash., with hospital connections; especially desires part-time laboratory service in hospital on salary basis of $1,500 to $2,000 annually.

Experienced hospital superintendent, commissioned as captain, now on duty in France with Red Cross Bureau of Hospital Administration, expects soon to be released from service and desires position as hospital superintendent.

Experienced hospital superintendent, graduate physician, just released from military position, desires position as hospital superintendent; middle-aged man, excellent recommendations.

1918 Convention Souvenir Programs

The secretary has about one hundred copies of the 1918 Atlantic City Convention program. Members desiring copies as souvenirs can obtain the same upon written request.

The Campaign Against Venereal Disease

The American Hospital Association recently sent the following letter to hospitals throughout the country, and it is hoped that all hospitals will cooperate heartily in this important campaign:

To the Hospitals of the United States:

The American Hospital Association asks your cooperation in one of the great national programs arising out of the War. At the convention of the association held in Atlantic City during September, 1918, it was unanimously voted:

"That the American Hospital Association heartily endorses the program of the War Department for the control and treatment of venereal disease, and that the hospitals of the country be urged to cooperate with this program in every way, and particularly by developing, or when necessary establishing, clinics for treating venereal disease, and by opening their wards to patients with these diseases who require bed care."

The War Department, the United States Public Health Service, the Council of National Defense, and the War Camp Community Service jointly undertook a great national campaign to control, treat and prevent venereal disease. It has been demonstrated that syphilis and gonorrhea are the most serious causes of illness and inefficiency in the army. It has been proved by experience at all the army camps that the sources of these infections lie not within the army itself, but in civilian life, and it has therefore become apparent that the civilian communities and civilian agencies must take aggressive steps to control these diseases. Five-sixths of all the syphilis and gonorrhea treated in the army was contracted prior to enlistment. Let us develop facilities to care for the men and women at present going about untreated or quack-treated and, therefore, acting as "carriers."

Thirteen of the state boards of health have organized bureaus for the prevention and control of venereal diseases. Thirty additional states, making a total of forty-three, have made venereal diseases reportable. This leaves only five states and one territory, the District of Columbia, within the territorial limits of the United States in which provision has not been made for the reporting of venereal diseases. It is expected that these states and the territory will soon make venereal diseases reportable.

In forty-two of the states medical officers of the Public Health Service, either the joint appointees of the state and the Service, or commissioned officers of the Service, have been detailed for the work of venereal disease control. The work which is being done includes public education, the enforcement of laws which provide for the control of infected persons, and, in particular, the provision of adequate facilities for diagnosis and treatment of syphilis and gonorrhea.

In this, the hospitals and their out-patient departments or dispensaries must play a large part. The great bulk of cases of these diseases are ambulatory. It has been demonstrated that well-organized out-patient clinics for syphilis and gonorrhea are absolutely necessary steps in any general attempt to diminish or control these diseases. The resources of private medicine are now universally recognized as inadequate in this respect.

A communication from the office of the Surgeon-General read at the convention of the American Hospital Association, states:

"The experience of the Army, the Navy, the Commission on Training Camp Activities, and the Public Health Service during the past year has clearly indicated the urgent necessity for our hospitals throughout the country opening their doors to venereal disease patients and doing everything possible to facilitate the extension of clinic and follow-up service to ambulatory cases. There is now no doubt that the American public will support fully the campaign for the control and gradual eradication of venereal diseases."

The campaign against syphilis and gonorrhea is not primarily a moral issue, but an issue of public health and national efficiency. The need existed before the War and

will continue after it, but the War emphasized more than ever how essential it is to maintain the physical condition of our population at its best, and to combat diseases which sap our national stamina. The time when the subject of venereal disease had to be approached in fear, or be covered up by silence, has passed away.

In behalf of the American Hospital Association, each hospital board of trustees is asked to give careful consideration to this matter and to take whatever steps are practicable to see that the hospital plays its full part within its community in this good fight.

Existing clinics which your hospital may already have, which receive syphilis and gonorrhea, need in many cases to be enlarged, and always should be coordinated with the local and state public health authorities. Where no such clinics exist, out-patient clinics for the diagnosis and treatment of syphilis and gonorrhea should be established. A number of hospitals have conducted such clinics without any net expense for maintenance through charging fees covering the cost. This policy is quite compatible with a large amount of free or charitable work. Several states have appropriated money for the support of venereal clinics, and subsidized them when they come up to officially recognized standards of efficiency. The Federal government, by the Chamberlain-Kahn Act, has appropriated one million dollars for distribution among the states for this purpose.

The American Hospital Association will gladly furnish information when desired as to details concerning the establishment or management of clinics or the policies which various hospitals have successfully adopted in the use of beds for venereal cases. The undersigned may be addressed for information in this regard.

Respectfully yours,

A. R. WARNER, President,
Address: Lakeside Hospital, Cleveland, O.
MICHAEL M. DAVIS, JR.,
Chairman Committee on Dispensary Work,
Address: 25 Bennet Street, Boston, Mass.

The Gospel of Sanitation

"The greatest word in the vocabulary of the professional medical officer is sanitation," says Surgeon-General Merritte W. Ireland, writing in the *Red Cross Magazine*. "Sanitation means cleanliness. And, if order is heaven's first wish for the world, cleanliness must certainly be its second. In fact, if I were called upon to outline heaven's program for humanity, I would place cleanliness first of all.

"That the world may be clean—that is the way I view the great task of the Red Cross workers of the world—clean physically, clean mentally, and clean morally. I can think of no more inspiring or practical gospel for humanity than that. And the Red Cross is its evangelist.

"If such service is needed by the world in general, how much more is it needed by an army in action! It is a well-known fact that our greatest enemy in this war was, not the Germans, but dirt. Never before have soldiers had to fight, so much exposed to dirt and filth. And yet never has a war been won with so little suffering and death caused directly by this enveloping contagion. For this achievement—and there has been no greater in the late war in Europe—we have to thank most of all the American Red Cross."

The American Army Hospital at Beaune, a beautiful village in the Cote d' Or region, replaces a small hospital built by the Duke of Burgundy in 1443. It covers a square mile of territory and has six hundred buildings of a permanent type, with accommodations for almost two thousand five hundred patients.

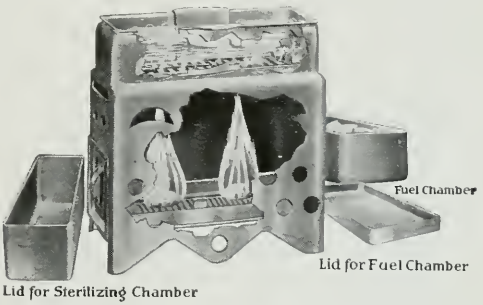
NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.

Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast Avenue, Oak Park, Illinois.

Sterilizer for Hypodermic Needles

An ingeniously constructed little apparatus, known as the Goss-Marshall portable sterilizer, is now being offered to the profession and nurses at the supply houses. The device is very small, small enough to be carried in the nurses' bag or even in the coat-pocket, and is so constructed that nothing can get out of order, because practically every part is stamped from a single piece of metal.



Goss-Marshall portable needle sterilizer

The process of sterilization is as follows: The needles are placed on a rack fitting into the upper chamber, the chamber is filled with water and two 5-grain hexamethylene tetramine tablets are placed on the crate, a match is then applied, and sterilization begins almost at once.

The cost of the tablets is small and they leave no soot or ashes.

Continuous Empyema Drainage Apparatus

A new method of continuous drainage for empyema has recently been described in *Surgery, Gynecology and Obstetrics*, and we believe a description of the apparatus used for this purpose will be of interest to our readers.

In attempting to perfect a method of continuous drainage in cases of empyema and, at the same time, exclude atmospheric pressure and secondary infections, Dr. H. B. Philips, Gouverneur Hospital, New York City, has devised a special canula which is practically non-obstructable and with which one can drain the pleura through an intercostal space into an air-tight receptacle. Special provision is made for the attachment of a suction pump and a negative pressure manometer, as shown in Fig. 2. This makes it possible to maintain any desired negative pressure in the pleural sac while draining it.

The doctor states that control over the negative pressure throughout the treatment insures against primary collapse of the lung and its coincident grave dangers. It

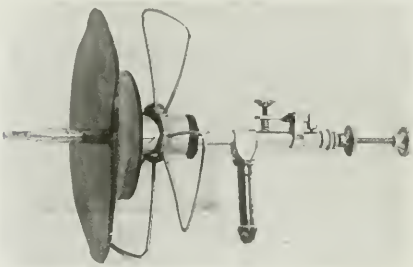


Fig. 1. Philips empyema drainage apparatus.

also affords a means of keeping the lung expanded automatically, thus promoting early adhesions between the pleura and preventing the formation of a dead space. The non-obstructable canula, which is a trocar canula convertible into a canula with a hidden curette, assures ample drainage and obviates rib-resection or other operative procedures. With this method, the original dressing is the only one, so that secondary infection from extraneous sources is practically impossible. The mussy, obnoxious

Fig. 2. Philips empyema drainage apparatus in use.

dressings are entirely done away with, as all the pus accumulates in the receptacle provided for the purpose. Dr. Philips claims that the entire procedure tends to shorten the duration of the treatment and affords a method which is scientific, sanitary and simple.

The apparatus consists essentially of four parts: (1) a special canula with a suction cup to hold it to the chest-wall; (2) an air-tight receptacle; (3) a negative pressure manometer; (4) a suction pump. These parts are connected by heavy walled rubber tubing, so as to make an absolutely air-tight system when connected to the pleural sac. The special canula is so constructed as to be used as a trocar canula for the thoracotomy, after which, the canula, being left in the situ, the trocar portion can be converted into a curette and used to cleanse the canula, when necessary, without removing it from the chest-wall, (see Fig. 2). This change from a trocar to a curette can be accomplished without any leakage of air through the canula. The canula is held tight to the chest-wall with a rubber suction cup, through which it projects into the thorax sufficiently far to have the orifice of the canula flush with the parietal pleura. This is to preclude any possibility of traumatizing the lung or visceral pleura with the rigid metal canula. The canula is connected by heavy rubber tubing to the receptacle, in this case a glass bottle, with a two-hole rubber stopper. An indicator is suspended at the orifice of the inlet into the bottle, and, if the canula is not obstructed, it will move with every act of respiration. Should the indicator be immobile, it would mean that the curette should be used and the canula cleaned. By means of rubber tubing, the receptacle is connected to a negative pressure manometer and a suction pump, which are both detachable.

Roentgenographic Head-Rest

This head-rest was designed by Dr. Bundy Allen of Iowa City, Iowa, primarily to give the exact angle for roentgenographing the accessory sinuses of the head. The

Fig. 1. Victor-Allen roentgenographic head-rest

apparatus has the proper angle for making posterior-anterior roentgenograms of the head, showing frontal sinuses, antra, orbits, anterior ethmoid cells, and nasal cavities. Figure 2 shows how the angle position serves to isolate the mastoid for a roentgenogram, thus eliminating the confusion so often experienced in reading roentgenograms in which two mastoids appear overlapping. By readjusting the head-rest parallel with the table, the correct position is obtained for the steroscopic lateral view of the head, showing the depth of the frontal sinus sphenoid, posterior ethmoids, and sella turcica. All of these exposures may be made straight or steroscopically.

While this head-rest was designed primarily for roentgenography of the head, it can also be used for practically every joint in the body, either straight or stereoscopically.

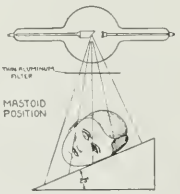


Fig. 2 (to left). Head in position for taking roentgenogram of the mastoids

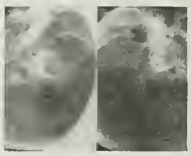


Fig. 3 (to right). Stereoscopic roentenogram of the head

The apparatus can be used on an ordinary table or a roentgen table, the only requirements being the accommodation of the patient in horizontal position to admit the use of the tube stand alongside.

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

Vol. XII *May, 1919* No. 5

ROSS PAVILION OF THE ROYAL VICTORIA HOSPITAL, MONTREAL

Beautiful Location on Mount Royal—Architectural Difficulties Overcome—Pleasant Surroundings Promote Convalescence—All Equipment Designed for Practical Results

By EDWARD F. STEVENS, Architect, Boston, and H. E. WEBSTER, Superintendent of the Royal Victoria Hospital, Montreal

THE problems and conditions given the architects of providing for one hundred and thirty private patients in the Ross Pavilion of the Royal Victoria Hospital at Montreal were somewhat unique.

The precipitous grade on the side of Mount Royal, where the main buildings are located, made the study of the site for the new private ward pavilion a most important factor. There was no room on the east; a location at the west on Pine Avenue would bring the new building into too close proximity with the existing group; so a location at the northwest was selected, about 300 feet from the original group at the edge of a plateau on the slope of the mountain.

After the selection of the site, the next problem was the approach; first, from the main hospital, and second, from the street. The first has been solved by tunneling into the mountain to a point directly under the staircase and elevators and sinking a shaft to meet this tunnel, as the main floor of the new building is 100 feet above the main floor of the original hospital. This tunnel corridor leaves the second story of the main build-

Fig. 1. Front of the Ross Pavilion of the Royal Victoria Hospital, Montreal.

ing, crosses a bridge, and then, with a 5 per cent grade, reaches the elevators and staircase at a level of 50 feet below the ground floor. As to the second, the pavilion entrance is about 1,000 feet from the street entrance, which is marked by heavy wrought iron gates. The main courtyard, at the east of the new pavilion, is reached by a moderate slope from the gates, and is sufficiently broad to allow the turning of automobiles and carriages. This roadway was excavated from the side of the hill along which it rises to the elevation of the new building. The patients' entrance is from a courtyard at the west, approached by a detour from the same driveway. (See block plan.)

In connection with the patients' entrance, there is an exedra, through which is the approach to the patients' lawn and tea house. Walks lead through the natural park. This park consists of a large tract of land that will be reserved for the patients and will be developed as the needs in-

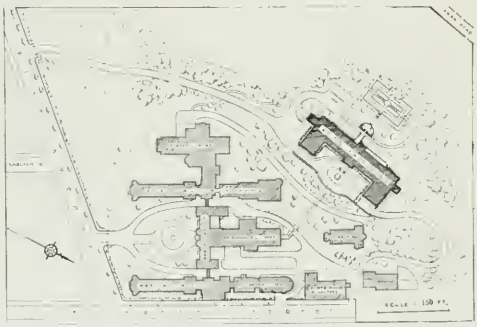


Fig. 2. Block plan of the Royal Victoria Hospital. Ross Pavilion has an elevation of nearly 100 feet above the main building and is connected with it by a tunnel which was dug into the mountain to a point directly under the staircase and elevators, where a shaft has been sunk to meet it.

crease. The location is such that patients will be relieved of the disturbing noises from the street or from the main hospital buildings.

The exterior of the building is designed to harmonize with the original plant. This necessitated the use of the Scotch baronial type of architecture and the material is of rock-faced Montreal limestone with cut stone quoins and ornament. Being on an elevation nearly 100 feet above the other buildings, it naturally dominates the group when viewed from a distance. A central tower was considered a desirable architectural feature, and this makes a practical housing for elevator machinery, fans, and ventilation outlets.

The main entrance from the east court is through a porte-cochere to the memorial vestibule. This vestibule has walls and groined ceiling of Caen stone and floor of marble. On the right of the entrance is the porter's window; on the left, a memorial tablet in bronze, surrounded by marble, with the inscription: "This pavilion was erected and equipped by John Kenneth Leveson Ross, to the memory of his father, James Ross, and of his mother, Annie Kerr Ross."

The first story is used entirely for administra-

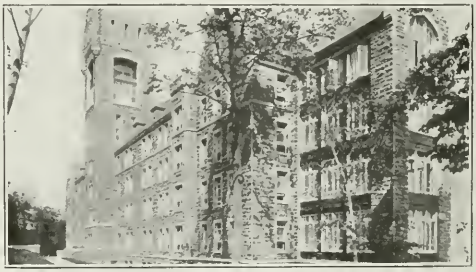
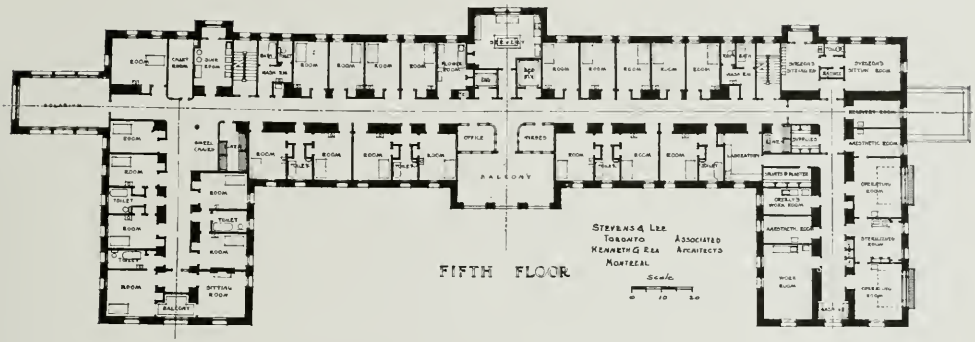


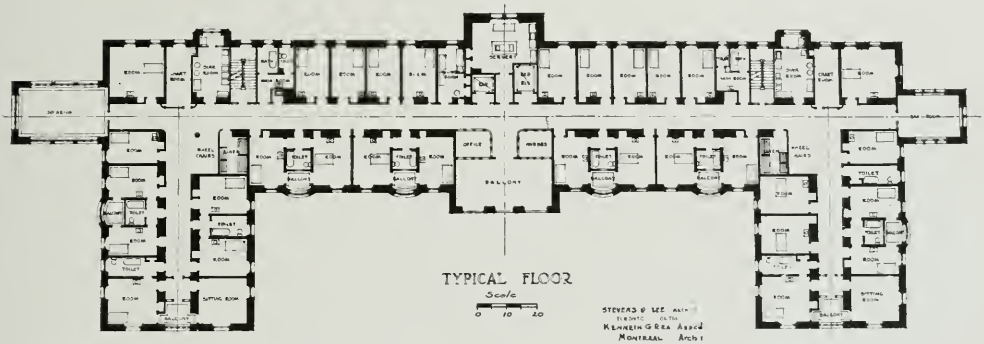
Fig. 3. End view of Ross Pavilion. The tower adds to the commanding appearance of the building and makes a practical housing for elevator machinery, fans, and ventilation outlets.

tive purposes, medical treatment, the culinary department, and a small psychiatric department. The entrance hall is 26 feet by 32 feet, and here the architects felt at liberty to depart from the hospital type of finish. Here there is paneled oak dado, with the upper portion of the walls of Caen stone and a paneled vaulted ceiling. At the five electric outlets in the ceiling are heavy bronze chandeliers. The heating of the room is taken care of through a central marble and oak pedestal with bronze grilles. The floor is Belgian black and Italian white marble, with a border of Tennessee. At the right is the general office (back of which are the private offices), with a paneled oak counter; at the left is one of the reception rooms, and directly ahead are the two elevators. These elevators lead from the tunnel, 50 feet be-

Fig. 4. Entrance hall of the Ross Pavilion, showing method of heating from the middle of the room. In this beautiful room the architects felt at liberty to depart from the hospital type of finish.

low, to the attic or storage space, and are two in number—one a general elevator for standing passengers or guests, and the other for beds, stretchers, and supplies, and for serving the serving kitchen. The larger lift is so arranged that





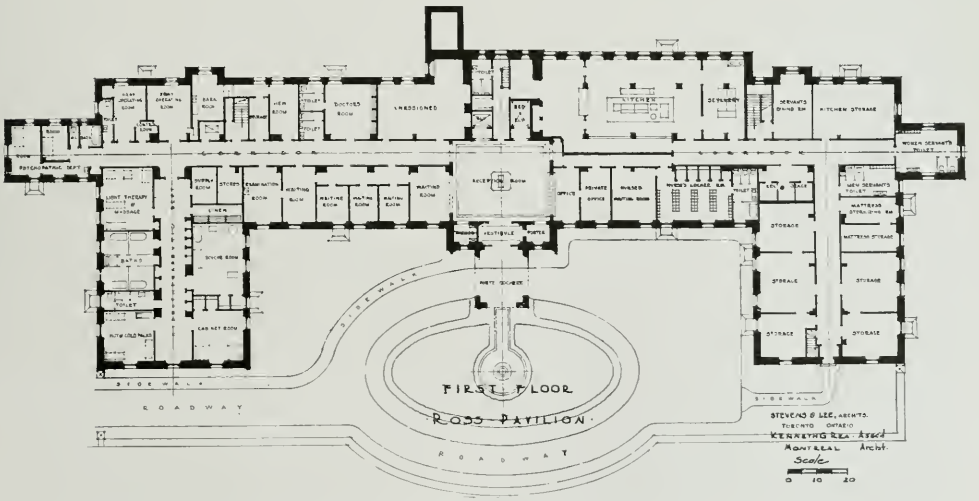


Fig. 5. Floor plans of the Ross Pavilion. The fifth floor is mainly devoted to rooms for patients, but the north end has been set apart for the rooms of the operating department. The typical floor plan below shows the sun parlors at either end of the long corridors which are fitted up with easy chairs, writing desks, palms, etc., and which make a particularly pleasant feature of Ross Pavilion. The first floor is used entirely for administrative purposes, medical treatment, the culinary department, and a small psychiatric department.

with the power trucks which will be used, patients can be taken from any part of the main building, through the tunnel, up to any floor, room, or balcony in the new building.

The kitchen, located on this floor, is a model of convenience, and has every device for cooking and serving of food to the class of patients for which this hospital is designed. It is divided into three sections—the scullery, where rough work and the preparation of food is done; the central portion, where all foods are cooked; and the serving portion, where the food is loaded into the food trucks preparatory to its transit to the various serveries. Connected with this department are the special dining rooms, store rooms, refrigerators, and service stairs.

From the main entrance hall, through a special corridor, are the rooms for the use of the special nurses, consisting of locker room, dressing booths, and baths. Adjoining the main entrance on the south is a series of waiting and examining rooms. Locker and toilet rooms are provided near the main entrance for the accommodation of staff members.

On this floor is a complete Roentgen or x-ray department with the most modern equipment. This consists of two operating rooms, control room, developing room, view room, plate storage, and toilet. A special room is set apart for the electrocardiograph, with wires extending to the different floors, so that records may be taken without moving the patient from his own bed. There is a large medical treatment department, consisting of the various baths—shower, needle, douche, sitz, continuous, carbon dioxide, etc. Also rooms for electric cabinets and for baking and hot packs and rest rooms, etc., are provided. A small psychopathic department with a continuous bath is provided for the occasional need of patients requiring rest and isolation.

While there are no patients located on this first floor except the occasional psychopathic patients, the entire second, third, and fourth floors, and a large portion of the fifth floor are devoted to their comfort. On the central axis of each story is a large airing balcony, of sufficient size to accommodate many beds and patients in wheel chairs. Connected with these balconies on each floor are the office of the head nurse and sitting room for nurses. On the west side, on the same axis, are located the serveries or serving kitchens, from which the individual service to each patient is taken. These serveries connect directly with the main kitchen through the service elevator. There are thirty suites of two rooms, with bath and private balcony; numerous suites with bath; and large private rooms with baths adjoining. Two rooms and a bath are provided on the attic floor for special noisy cases.

Fig. 6. Sterilizing room, showing special built-in dressing sterilizer.

The construction of the building has been carefully studied to avoid the transmission of noises from one part of the building to another and from one room to another. To that end, double floors and double partitions are built; also double windows everywhere. The entrances to all the patients' rooms are vestibuled with two doors. All latch bolts and all noisy hardware are omitted. The floors of the rooms are covered with linoleum, and the floors of the corridor with cork tile.

Careful study has been given to the decoration of the patients' rooms. Each room is provided with a special hospital lavatory, a built-in china mirror frame, surrounded by a tile and mosaic border, a semi-direct ceiling light, portable bedside light, telephone connection, nurses' call system and a clothes closet, through which the room is ventilated; this system affords ventilation to the contents of the closet as well as to the room.

In addition to the main balcony and the private balconies, on each floor there is a large day room on the north and a solarium on the south. Sink rooms, toilets, and baths, and linen, medicine, and broom closets are provided. The corridors are wide and the floors are laid in cork tile. Vacuum cleaner connections, fire hose, and drinking water fountains are provided on every floor.

The north portion of the fifth floor is set apart for the operating department. It has been the endeavor of the architects to make this department second to none, not in elegance and expense, but in simplicity and practical results. The operating rooms have been particularly studied for the results which are here obtained. The floors are of Tennessee marble; the walls of Tavernelle marble, of a tawny yellow color (selected for its softness and freedom from reflection); and the ceilings and cove of plaster, painted ivory white.

The light through the skylight is diffused by the use of special glass in the frames. The wall lights, as well as the ceiling, have a double sash, with heated air space between. The outside air

is admitted, after heating, through space between the sashes. There are no radiators or exposed fixtures in the rooms themselves. These rooms are artificially lighted through wall-paneled lights and intense hydrogen lights in front of powerful reflectors above the ceiling lights, which give the effect of daylight. Distilled water is brought from the still, located above, and reheated to any desired temperature in the room, this being the only fixture projecting beyond the surface of the walls. Built-in metal cabinets take care of supplies. A flushing floor drain provides for drainage. Compressed air, nitrous oxide, and oxygen are piped to each room.

In the sterilizing room, which is located between the two operating rooms, there is installed the most modern sterilizing apparatus. The dressing sterilizers, which have been especially designed for this pavilion, are built into the walls and surrounded with marble casings. These sterilizers have a special device for using superheated steam and for condensing the moisture to give dry dressings. The surgeons' scrub-up is in the open corridor. It is simple in construction, the water being turned on and off by the touch of an elbow. Here also are the built-in cabinets for hot blankets and instruments. The nurses' workroom, the surgeon's dressing and locker room, the plaster room, the cystoscopic and anesthetizing rooms, the laboratory, and orderlies' room are all here provided. Distilled water is provided not only for surgical purposes, but for drinking water for the entire pavilion. A room is set apart for this plant in the attic space, and the water for drinking purposes is cooled and circulated throughout the building to drinking fountains on each floor.

The heating is by hot water, forced by pumps from the hospital boiler plant through a special tunnel. The radiators are set well away from the wall and floor, and are supported on brackets.

The nurses' call system consists of a locking push button at each bedside, recording the number of the room at the various nurses' stations on each floor by a silent electric light annunciator and by a signal light over the door of the patient. In addition to this, an elapsed-time recorder, making a record of every call, is provided in the main office of the building.

Exhaust ventilation is provided by means of fans directly connected to electric motors. The air is drawn from the rooms through the ducts.

The rooms in the Ross Memorial are finished as plainly as possible. The walls and ceiling are painted in soft dull colors, either in cream, gray, or pale blue. There is no wainscoting, and the doors and windows are built on a level with the walls, so there are no ledges where dust may collect. The floors are of cement with battleship linoleum inlaid to within a foot of the wall, where the cement is raised to form a narrow shelf which prevents beds or articles of furniture being pushed against the wall. The furniture consists of lounge, Morris chair, small chair, bureau, bedside table and bed. All are made plainly in order to guard against the lodgment of dust. The beds are enameled either gray or white, according to the color of the room; they are on wheels, fitted with stationary Gatch, and the legs are provided with pins to elevate head or foot as desired. The furniture in the gray and cream rooms is of mahogany and in the blue rooms of white enamel. The lounges and Morris chairs are upholstered in gray leather and have slip-over covers of bright-colored cretonne. In many of the larger room there are wash curtains of the same material covering lounge and chair. Each room is fitted with necessary sick room articles, such as hot-water bottle, ice cap, etc. A majority of the rooms have private baths and balconies, which are between adjacent rooms and can be used by either room as desired. On each floor are two suites of rooms which are at the extreme ends of the building and are separated from main corridor by swing doors. This location insures absolute freedom from ward noises. Each suite consists of bed room, sitting room, bath, and private balcony. Each sitting room has a fireplace with a mantel, a writing table, a lounge, and easy chairs. All rooms in Ross Pavilion have double doors. The inside ones are fitted with Yale closers. A very pleasant feature of the wards is found in the sun rooms at either end of the long corridors, which are fitted with lounging chairs, couches, writing table, palms, ferns, and gay-colored cushions. Patients find these sun rooms a pleasant change from their own rooms, and many hours of convalescence are spent enjoyably there.

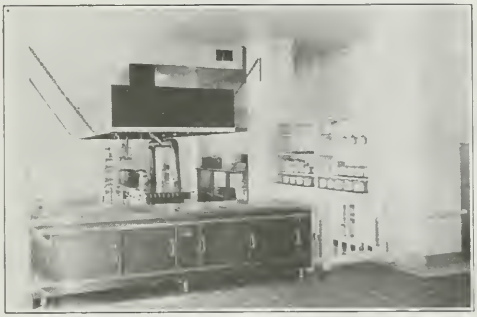


Fig. 7. The kitchen is described as "a model of convenience," and it is arranged and equipped to do the most efficient work both in cooking and service.

IMPRESSIONS OF DESOLATED BELGIUM

The Germans Have Left a Wilderness in the Country and Misery Among the People—Belgium Needs Material Aid and Moral Encouragement From Us

By Captain Dr. RENÉ SAND, Lecturer in Social Medicine, University of Brussels

I AM back after fifty months in my home in Brussels.

Leaving the front hospital where I worked two years in the sand dunes south of Nieuport, I crossed the Yser at Dixmude. I think Belgium ought to be entered by no other way.

I stood gazing at what has been the closed gate of my country since 1914; and I wondered again how multitudes of men have been able to live in this cataclysmic wilderness, where shattered stones seem to have been projected by a volcano, where there are no trees, no hedges, no grass, but holes and holes and mud. Since the soldiers have left, even the birds have deserted the solitary fields. Silence, desolation, and abandonment show us Death in the torn-up ground, Death in the turbid, yellowish flood, Death in the broken stones themselves — so strange and tragical is their shape.

After miles and miles, when the oppression of horror has become almost unbearable, you suddenly see life again; a cow lies on a small patch of grass, preserved in the universal destruction; some slender trees appear, and, finally, a poor rickety old house, scarcely higher than the uplifted hand of a man, in front of which some children wave flags at us as we pass by. And so to Bruges, Ghent, Antwerp, Malines, Brussels. I cross the dear old cities. How aged and sad and silent they look, and how pale and thin and worn out are the people! There is a flash in their eyes when they see our uniform, but those eyes will not smile again. Hunger and despair have banished joy forever.

I look around and ask, trying to understand. We who come from the free, fighting world, we are so different from those bent creatures. They have been so downtrodden by the invaders that you see the prison look in their faces. They seem to belong to another world. We are a century ahead of them. Some of us have suffered, all of us have seen terrible suffering and looked death in the face, but the experience was ennobling.

Here, on the contrary, starvation, treachery, and oppression have been demoralizing. Some Belgians have become agitated, almost querulous. Others are timid. Most do not feel the full change still. Something is wounded inside which time and patient care only will heal.

Railways, harbors, manufactures are destroyed. Materials to rebuild are lacking. The surrounding countries, themselves impoverished, have little

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"Holes and holes and mud! Since the soldiers have left, even the birds have deserted the solitary fields."

to share with us. Living in Belgium is now six times more expensive than formerly, and most people are ruined and out of work.

The reshaping of our industrial life will take two years at least; we shall start again physically and morally depressed, with the handicap of four years' intellectual isolation, with the helplessness of a pauperized country.

We want experience and science and moral guidance to polarize our scattered nation. We want the optimistic, never-doubting American to give us a lift. We want to feel the strong, safe hand of a friend grasping our weakened arm and leading us out of the dark wood to hope and light again.

Will America be our good Samaritan?

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Red Cross workers in one of the ruined streets at Nieuport where the fighting was fiercest.

Suggestions by Dr. Sand for an American Foundation in Belgium

PERHAPS the best form that an American foundation in Belgium could take would be a school for social service. We have no such school either in France or in Belgium. Only a few Belgians know that such schools exist somewhere in the world.

Our philanthropy is still fragmentary and empiric. During the German occupation, however, something new occurred; women and girls began the welfare work with mothers and children. So a school of social service would find plenty of right-spirited and already more-or-less prepared pupils. The school would (1) give us your American documentation, experience, and viewpoint on social problems and remedies; (2) investigate our conditions according to American methods; we have no proper *surveys*; (3) educate social workers and stimulate our backward charitable and philanthropic institutions; (4) irradiate the American spirit of energy, self-respect, reform, and social sense. These would be our advantages.

Yours would lie in the fact that the school could be used by American sociologists as a laboratory of experimental social science and a research center.

Such a school ought to be created in Brussels and more or less connected with the university. The two institutions would help each other effectively. The professors ought to be American men and women with special experience in social work. Perhaps some could come and lecture during a few weeks or months only in order not to interrupt their career in the United States.

The language difficulty would not be great. Most of our educated girls speak English, especially since the war. During the first two years the school could be run entirely in English. Then among the first batch of pupils some would be found who could act as assistant professors and help with the French-speaking pupils. So the school would gradually take root in the Belgian soil.

THE ROLE OF THE INTERN IN THE STANDARDIZATION OF HOSPITALS

Important Changes Necessary to Provide Thorough Training for Interns—Affiliation of Hospitals Desirable—Standard Basis for Hospital Graduation an Important Feature

By WALTER C. ALLEN, B.S., M.D., Chicago

WHETHER a physician is to become a surgeon, an internist, or a specialist, it is the duty of the hospital to see that he is trained for his work, and it is the duty of the medical colleges, the state, and the public, to say nothing of the intern himself, to demand it. The hospital must become the clinical laboratory of the medical school. The progressive movement toward the requirement of a fifth or hospital year for graduation from the medical school and recognition by the state board will place new and weighty responsibility eventually upon the hospitals. It is reasonable to suppose that, if hospital experience is to become a requisite to the practice of medicine, steps will be taken to see that such hospital experience is adequate.

Revolutionary changes are necessary before the intern can obtain the training which is his proper heritage. The training of interns must become one of the recognized functions of hospitals, whether they enjoy close affiliation with medical schools or not, and the rôle of the intern must become one of the factors in the standardization of hospitals, just as an adequate training school for nurses must be one of the items in the classification of hospitals. Now, how does this affect the administration of hospitals?

Hospital trustees and superintendents must first be brought to appreciate the fact that thoroughly trained interns are among their most valuable assets. Private and semi-private hospitals depend for their existence upon their standing in the community and their service to it. This standing and service depend in no small measure upon the service which interns and nurses are able to render to the patients and the hospital. The higher the *esprit de corps* of the intern staff, the more efficient will be the service of the hospital to the community. The size of a hospital should not determine its classification as a Class A hospital, but its organization for efficient service to the community.

As regards the training of interns, there should be a general affiliation of hospitals, so that the training which is not available in one hospital may be available to the intern by assignment to limited service in another hospital. With such affiliations, small hospitals might send their interns for brief services to larger hospitals for duty on the special psychopathic, neurological, dermatological, gynecological, obstetrical, pediatric, tuberculosis, eye-ear-nose-and-throat, or other special services.

This affiliation might be broadened to include such features as central purchasing power, standardization of records, and the reciprocation of facilities. For example, given four small city hospitals, one hospital might maintain a genito-urinary service for the use of all four, another a gynecological service, another a tuberculosis service. Such concentration has its obvious benefits.

Another form of affiliation is that existing, say, between a group of small city hospitals and special hospitals, such as psychopathic, neurological, lying-in, children's, and chronic disease hospitals. Many of these special and state hospitals have great difficulty in obtaining good interns. Under a system of affiliation, this problem might be solved by the assignment to them of interns from the general hospitals by rotation. Bellevue and Allied Hospitals, New York, illustrate some of the benefits of affiliation, especially as regards administration. Bellevue and Allied Hospitals has also extended the movement toward affiliation to include the training of nurses sent to it from smaller hospitals. Affiliation for the training of nurses has been furthered by the organized associations of nurses. It is quite possible that similar help might be rendered by such a representative body as the American Medical Association.

The establishment of fifth and sixth hospital years in the medical curriculum may be expected to work a radical change in the appointment of interns. The medical schools must contract to furnish the hospitals with sufficient well-trained interns to man the staffs. Hospitals should hail such a change with joy as ending once for all the scramble (sometimes disgraceful) of medical students for internships; the humiliating scramble for interns by small or less attractive hospitals, which are often forced to bid in competition with other hospitals and to offer bait in the form of bonus or salary for such services; and lastly, the flight of interns from hospital to hospital, leaving behind them a trail of dishonorably broken contracts.

The whole system of salaries for interns is pernicious in the extreme; the only true way is to consider internships as schools of experience and training. If there is to be an exchange of the coin of the realm, it should be from intern to hospital, and not from hospital to intern.

Where such experience and training can not be obtained, a higher authority should step in and secure such reorganization and affiliations as will guarantee the requisite training. Medical schools should assign their students to hospitals just as they would assign them to groups for fourth-year medical work. The choicest internships should be awarded on a basis of scholarship. Efforts should be made, by organization and affiliation, however, to make all internships of equal value.

The intern should be made to file with the dean of the medical school the certificate of graduation from a hospital before being granted his degree, just as he is required to dissect a cadaver satisfactorily or deliver six patients in labor.

Under such a system, internships become stewardships, requiring the performance of duties in a satisfactory manner. The proper execution of the paper work of a hospital—birth certificates, death certificates, insurance and workingmen's compensation reports, and the histories, physical examination, operation, and laboratory records of patients—can be insisted upon. Hospital records will become more than mere worthless scraps of paper. The medical and surgical care of patients can be properly assured.

Such new relations, however, are not without their added responsibilities to the hospital. The intern will be entitled to training. This may mean that the visiting staff will have to revise their relations with the interns or get out. In other words, their own interests, possibly selfish ones, may have to accommodate themselves to the end that proper training and experience be assured the intern. The visiting staff may have to spend more time at the bedside and in the operating room. Nor will it be possible to kick an intern out of the hospital at the whim of a member of the staff. The power of the medical school may be expected to insure the intern against dismissal without just cause and a fair hearing.

Concise hospital rules should be established and rigorously enforced, infraction of which should constitute the basis of dismissal. Interns should be made to wear uniforms and should be supplied with the tools of the profession, stethoscope, steel tape, bandage scissors, hematocytometer and percussion hammer. An alumni association of the interns graduated by the hospital should be encouraged, with advisory powers in the standardization of the hospitals as it relates to interns, and with frequent clinical meetings to utilize the clinical material of the hospital, and to arrange for medical programs to present the results of research by the staff. The hospital certificate of graduation should assume the importance and dignity of the diploma of the medical school itself. There should be a standard, uniform, or universal form of hospital certificate of graduation covering the minimum requirements of all hospitals coming under the classification of approved hospitals. Further distinguishing marks could be added to this standard certificate, as, for example, a gold seal for noteworthy operative technique, recognized discoveries, or original contributions or research in medicine.

A representative of the superintendent, of the hospital trustees, of the medical staff, or of the medical school faculty should be empowered to keep a tally of those things which the intern must have performed as prerequisites to hospital graduation. To present the matter more graphically, let us enumerate some possible prerequisites:

(1) Reports of microscopical analysis of a series of centrifuged urinary sediments; (2) quantitative determination of the sugar by Fehling's reagent in a diabetic urine; (3) demonstration of satisfactory technique for staining smears for tubercle bacilli, gonoccoci, and the diplococci of meningitis; (4) demonstration of malaria plasmodium by appropriate stain; (5) guiac test for blood in feces; (6) isolation of ova of intestinal parasites; (7) performance of Widal reaction; (8) complete gastric analysis; (9) culture of diphtheria bacilli and demonstration by stained smear; (10) analysis of a spinal fluid; (11) preparation of stock solutions and stains; (12) blood pressure determinations; (13) series of approved histories and physical examinations; (14) management and medication of cases of pneumonia, typhoid fever, acute rheumatism, diptheria, measles, scarlet fever, tonsilitis, acute cardiac decompensation, acute nephritis, gonorrhea and syphilis; (15) differential diagnosis of case of coma of unknown etiology; (16) percentage feeding of a series of bottle-fed babies; (17) care of case of acute mental disease or of delirium tremens; (18) eliminative treatment of a drug addict; (19) management of second and third stages of labor; (20) diagnosis of pulmonary and renal tuberculosis; (21) prescription writing and pharmaceutical preparation of same; (22) diagnosis by x-ray of fractures, tuberculosis, renal calculi, empyema, Pott's disease; (23) performance of an autopsy and preparation of report; (24) performance of circumcision, tonsillectomy, paracentesis for acute suppurative otitis media, empyema and ascites, herniotomy, appendectomy and treatment of varicose veins, varicocele, hydrocele, burns and fractures and skin-grafting, venesection, intravenous administration of salvarsan, transfusion and hypodermoclysis and regulation of a Murphy drip; (25) a neurological examination; (26) a diagnosis in a case of mental disease such as dementia precox; (27) diagnosis and treatment of a dermatological condition.

One has only to glance over a list such as has been given (by no means complete) to realize how far short the hospital comes from training the intern with the thoroughness required. The hospital year in medicine, the A-B-C classification of hospitals, and a hospital certificate which means definite things in the training of interns and nurses are three very closely related matters which may be expected to command the attention of hospital managers in the coming decade.

CANNING AND GARDENING FOR THE MENTALLY SICK

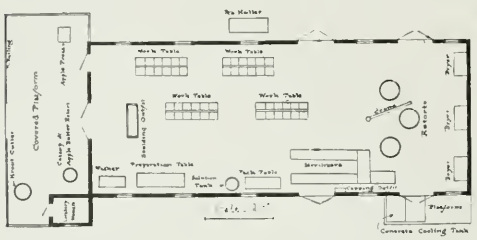
The Women Can the Garden Products Which the Men Have Raised—Occupation Especially Valuable for Mentally Afflicted—Cannery Pays for Three Times its Cost in One Year

By J. CLEMENT CLARK, M.D., Superintendent Springfield State Hospital, Sykesville, Md.

THE Springfield State Hospital is located about twenty-five miles from Baltimore on the estate formerly owned by William Patterson, the father of the willful Betsy, who married Jerome Bonaparte. It contains nine hundred and forty acres of undulating land and twenty-four cottages, including a psychopathic reception building, and cares for fifteen hundred patients.

Fig. 1. Psychopathic Reception Hospital Building of the Springfield State Hospital.

It is conducted on the open-door system. Its broad fields afford employment for a large number of male patients in farm and garden work. The value of occupation as a therapeutic agent is now recognized as a *sine qua non* in the treatment of the mentally afflicted. The good effect of a few hours' work out-of-doors is inestimable in such cases; motor excitement and restlessness seem to find an outlet in it, mind and body acting together, as it were. The exercise in the open air increases the appetite, promotes digestion, aids the action of the kidneys, stimulates the function of the skin, and often relieves insomnia. Medicine can do no more; besides, the constant use of medicine for such purposes is more or less harmful. Work properly regulated is not injurious but beneficial. The mental effect of work is also beneficial, helping the patient fix his attention, aiding memory, creating a healthy interest in his surroundings, thereby helping him forget his delusions, and, if he is a melancholiac, his unpardonable sin.


Work Table
Work Table
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Work Table

While, of course, we have canned fruits and vegetables in our kitchens, it was not until three years ago when we built a cannery that we were able to take care of any large crop of the smaller and more perishable vegetables. The cannery was built by our engineers and mechanics and is located near the power house, so that it is necessary to pipe the steam only about 40 feet. It was built out of the lumber from an abandoned shack, and the actual cost of the whole plant has not been over $500. It has all the equipment necessary, conveniently arranged. (See Fig. 2.)

The vegetables and fruits are carefully sorted before preparation, the unsound being culled from the select. In the case of tomatoes, the selected vegetables are then passed to the scalding trough, after which the skins are removed. They are then sent to the packing tables and when packed are immediately run through the sterilizer. The cans are promptly capped and placed in retorts under a steam pressure of 20 pounds until processed, when they are removed

Fig. 4. Patients gathering tomatoes in the fields of the Springfield State Hospital at Sykesville, Md.

and placed in the cooler, after which the canned product is ready to be stored. As all the waste from the preparation tables is utilized in the making of catsup, there is very little loss in the canning of tomatoes. Other vegetables and fruits are treated in a like manner except in their preparation and the time of processing.

The cannery equipment has a capacity of 800 gallons a day and the three evaporators a capacity of 100 pounds.

The following statement represents the product of the season of 1918 which, but for a drought cutting off some of the vegetables, would have been greater: 13,512 No. 10 cans of tomatoes; 5,302 No. 3 cans of tomatoes; 16,289 No. 2 cans of corn; 956 No. 3 cans of string beans; 543 No. 10 cans of string beans; 85 No. 2 cans of string

Fig. 5. In one door and out the other—to the right the whole fruit is being brought in, and the finished canned products are stacked to the left.

beans; 3,376 No. 2 cans of peas; 936 No. 2 cans of lima beans; 3,980 No. 10 cans of apples; 756 No. 10 cans of pears; 445 pounds of apple butter; 1,987 pounds of dried apples; 64 ½-gallons of tomato catsup, and 54 barrels of sauer kraut. The total value of this production is about $15,000.

In addition to the canning, which, as stated, was done almost entirely by the women patients, our male patients have cut and husked our own crop of corn, cutting off 109 acres and husking 847 barrels of corn. They have also cut off 208 acres and husked 968 barrels of corn for the neighboring farmers, and they have helped in a large canning factory in the village from time to time during the season, for which $600 was collected by the hospital.

Fig. 6. The broad fields of the Springfield Hospital where last year the patients picked tomatoes for nearly 30,000 cans.

REHABILITATION THROUGH SYSTEMATIC EXERCISE

Exercise Under Supervision Emphasized at General Hospital No. 9, Lakewood, N. J.—Treatment of Men Disabled by Disease, Gas, and Shell Shock—Educational Department Offers Choice of Future Jobs

By A. F. GUGEL, Sanitary Corps, United States Army, Lakewood, N. J.

GENERAL Hospital No. 9 at Lakewood, N. J., contains about eight hundred patients and

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Fig. 1. Exercise is the keynote of the treatment at General Hospital No. 9, Lakewood, N. J. This exercise is designed to regulate the action of the heart.

four hundred officers and corps men. The town itself lies in the heart of the famous pine belt of the state on the main line of the Central Railroad of New Jersey. It is sixty-three miles from New York City, sixty-nine miles from Philadelphia, and eighteen miles overland from the Atlantic Ocean. It is located on high ground on sandy soil 700 feet deep. The clear, dry air, laden with the odor of balsam, is classed by physicians as virtually the same as that of Aiken, S. C., and Arachon, France.

The peculiar softness of Lakewood's climate permits outdoor recreation throughout the winter season, and its beneficial results have been enhanced by systematic improvement of all accompanying conditions. The woods and paths through the pines are always kept in splendid condition to permit riding, driving, and long hikes. The multitudes of walks and rambles have been given careful attention in order to encourage strolls for those who must exercise carefully and cautiously, or tramps of several miles for the more vigorous patients. The most popular walk is that around Carasaljo Lake, a beautiful sheet of water in the heart of the resort, two miles long and about a quarter of a mile wide, surrounded by beautiful evergreens, laurel, and stately pines.

Taking all these conditions into consideration, Lakewood may be said to be the ideal spot for the reconstruction and training of the maimed and of patients with certain diseases like those of the cardiovascular system, which pertain to the heart and blood vessels, and troubles which require orthopedic treatment, such as round shoulders, abnormal curves of the arms and legs, slight stiffening of the wrists and fingers, etc. These deformities are given careful attention, and an effort is made to overcome them by light gymnastic exercise; usually the patients are discharged in practically a normal condition.

Treatment is given to a great many cases of

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Fig. 2. Carpentry is one of the many industries taught at Lakewood which permit the recovered soldier to return to civil life on an independent basis.

empyema, a disease which consists of an accumulation of pus in a cavity in the body, usually in the chest. Fever is usually but not always absent, and there is a fair condition of health. All the patients suffering from this disease should be operated on, and part of the rib over the site of the pleural abscess should be removed to permit drainage. Often the drainage is complete, healing takes place with adhesions, and fixation of the lung occurs in varying degrees at the site of the abscess. The cure is more or less complete except that the patient suffers from the general poisoning, which is finally eliminated by special diet, plenty of pure air, and light physical exercise along the line of calisthenics and light games.

Then there are the patients with kidney trouble, who, of course, receive treatment according to the seriousness of the case. Treatment for rheumatism is given at the hospital—hot baths, electric treatment, light exercise, etc. Operations for hernia were quite numerous before the armistice was signed, because it was necessary to per-

form an operation before the patient could enter the army, but, since the signing of the armistice, there have been fewer operations and cases have been treated in a different manner. A patient is usually discharged from the hospital in such condition that he is able to follow his usual vocation.

Special treatment and unusual care must be given to patients who were gassed or received shell shock, and to men recovering from operations. These cases all vary to some extent and some must have more careful attention than others. The patient is watched carefully by special nurses, and his family is notified of the operation.

General diseases also are treated. These are minor diseases which do not require any special study or prescribing. The patient may be put on a special diet and confined to his ward or room; his case is recorded and his treatment follows general lines. If a patient has nothing seriously wrong he is advised to take a certain line of exercise; this he is fully expected to carry out, and in this way he is usually able to overcome his general disability and in a very short time be back in his normal condition.

These are the various diseases which are treated

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Fig. 3. Toy-making is a useful occupation taught at Lakewood, which has a beneficial influence on the mind. It is particularly useful in cases of shell shock.

at General Hospital No. 9, their treatment, and its results. I can not say much about the treatment of the maimed, for we have but one patient of that kind—a young man who has lost one of his legs. He has entered the commercial department of the hospital and is learning general office work, which is suitable because he will not be compelled to stand upon his remaining leg and foot.

With all these diseases and ailments and their treatment there is one main and essential thing—physical exercise. This is compulsory with all the patients who are able to get out of the hospital. The patient who is able to be about is again examined by a physician and given a card or prescription as to what line of exercise he must take; he is then assigned to a class every morning and must report for exercise. Eventually he is discharged from the hospital and leaves for his home to take up the line of work he wishes.

Another phase of reconstruction is the work which is done by the educational department. This department is ably and systematically instructing the wounded men under the supervision of highly educated officers, former professors, and instructors supported by capable assistants. It is supplied with a list of the names of the men as they arrive and are assigned to their wards; the men who are not totally disabled are sent for and talked to, and an effort is made to interest them in some industrial work or study.

If a man becomes interested and decides to take up a certain work, a memorandum is sent to the ward surgeon; the patient must have a doctor's certificate; if the surgeon thinks that he is able to stand the work he is put in the department he has chosen. Sometimes the work chosen is too hard or does not please him; in that case he is transferred to another department until he finds a place he is suited with and work that agrees with him. His physical condition is closely watched, and, if he does not appear to be getting strong, he is given work that will also help to build up his constitution.

As a rule the educational work is voluntary on the part of the patient, but sometimes it is compulsory, as in the case of the patient who had received an injury to his arm which left the

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Fig. 4. New men from old—these soldiers will return to civil life in good physical condition and trained in drawing—the most useful of the arts.

fingers of the right hand in a stiff and paralytic condition; this man concentrated his mind so strongly upon the condition of his hand that he thought that he could not use it; he was sent into the mechanical department, where he was

compelled to use his hands and fingers considerably in gripping the tools necessary to carry on the work; and thus, by this exercise and through the work which distracted his mind from the condition of his hand, he was soon able to regain the full use and control of it.

The subjects which are taught in the educational department are as follows:

In the occupational aid work the men are taught stenciling, carving, metal working, leather work, knitting, knotting, weaving, basketry, reed work, toy making, model making, painting, bead work, etc.

In the curative workshop they are taught auto mechanics, machine shop practice, tailoring, shoe repairing, furniture repairing, boat modeling, toy-making, woodworking, pattern-making, printing, linotype operation, painting, mechanical drawing, blueprint making and reading, commercial art and poster-making, telegraphy, and general electrical work.

In the academic and commercial departments we have English for foreigners, elementary and advanced English for English-speaking patients, English for colored patients, elementary and advanced penmanship, algebra, high-school English, Spanish, commercial law, business practice, bookkeeping, elementary and advanced stenography, Gregg and Pitmanic, and typewriting. Besides these subjects, we teach as occasion arises and are teaching at present, French, trigonometry, and solid and plane geometry.

In addition to this, the education department has charge of all recreational work, entertainment, social functions, band practice, newspaper work, etc.

PHYSICAL EXERCISE IN THE CARE AND TREATMENT OF CONVALESCENT PATIENTS

Partial Rest Combined with Carefully Selected and Graduated Movements Advocated—Nature the Most Potent Factor in Restoring Health—Qualified Physical Expert to Have Charge of Convalescent Patients and Prescribe Individual Treatment

By WALTER D. POWELL, Athletic Director, Sixth Naval District, Charleston, S. C.

THE problem of prescribing exercises designed to stimulate and strengthen weakened, rundown, or underdeveloped parts of the body has always been one of great interest to me. As a student and teacher of physical education, and a director of athletics both in college and in the army and navy, it is only natural that physical efficiency, fitness, and reconstruction matters should have come to my attention.

If more people would look upon their bodies as minutely adjusted mechanisms which need enough wear to keep them in good running condition but not so much that certain parts or bearings are overtaxed, our physical standards might easily be raised and our death rate lowered. Each individual is the engineer or caretaker of his body, so to speak. Some are endowed with better physiques than others, which is quite natural and right. Few are perfect. The strong should endeavor to keep their strength, and the weak develop that which Nature intended them to have. A care-worn, emaciated appearance is an open confession to the world that its possessor is a poor manager or engineer and vice versa. To neglect one's body to the extent that it becomes slight, corpulent, or unsightly is nothing short of criminal.

The object of this discussion is to call attention to the results which have been attained by a little care, thought, and diligence in exercising and caring for one's physical self. The following plan for the care and treatment of convalescents is applicable to both civil and service hospitals. However, it was originally worked out and put into operation in one of our naval hospitals. The one thought which must not be forgotten in developing the plan is that the work of the hospital is not completed until its patients are actually ready either for duty or for the natural pursuits of life.

The best treatment for convalescent patients has been a matter of discussion for many years. At one time it was thought absolute rest was the quickest and only effective method of restoring normal health. Some have maintained that a partial rest with frequent mild, graduated movements, designed to strengthen weakened parts and obviously suited to the general condition of the patient, would effect a more rapid recovery. It is with the idea of showing the efficacy of this plan that I am writing.

Granting that tremendous strides have been made in both medicine and surgery in the past few years, it must also be admitted that even now doctors strive only to allay chronic conditions by stimulating a normal flow of blood and keeping the various glands functioning properly. In other words, they realize their inability to heal and know that they are only agents working with the certain definite purpose in view of removing obstacles which impede normal, healthy life, or of

stimulating, on the other hand, those parts which have become lethargic and inactive, so that Mother Nature may accomplish the desired end.

Realizing, then, that Nature is, after all, the most potent factor in restoring or preserving health, why should we not be more solicitous about the welfare of patients after they actually leave the sick wards and begin their convalescent journey, instead of putting all of the emphasis upon their care when in bed and giving none immediately thereafter? In both the army and navy it has been customary to give a patient who is recovering a sick leave of thirty or sixty days, the idea being that the rest, change of scenery, and the possible visit home may have a valuable psychological as well as physical effect on his condition in general. In some cases this plan works out well, but too often men in the service who are granted furloughs rush away on the first train to their homes, eat anything and everything at irregular hours, sleep in crowded, improperly ventilated cars, and take cold. As a result many relapse into a condition worse than the first. To obviate this evil the following plan is presented.

In all hospitals of sufficient size as to be practicable, a qualified physical expert should be provided and should be regularly attached to the hospital staff. As opposed to the chief of surgery, chief of medicine, or chief of contagious section, he should be known as chief of convalescents or some other equivalent title. His duty is to take charge of all patients as soon as they are able to leave the wards and prescribe the kind and amount of physical exercise necessary for each individual case. As people differ widely in resistance, as well as in degree of sickness, it is necessary that the chief of convalescents watch the temperature, heart action, and all-around condition of his charges carefully. In many cases only the slightest, simple movements should be given. In others more vigorous ones may be required. He should take especial care that breathing exercises are made a part of the daily routine. As the men grow stronger, although still not able to go on duty, easy light games, such as cricket, quoits and volley ball, may be started. Later on, basketball, handball, boxing, and wrestling may be added. A weight sheet must be kept and all patients weighed regularly each day. If weight is falling off exercise must not be given. The convalescent records might well be added as a supplement to the regular health records or histories. The physical director should see to it that the men have enough recreation so that they will have no time to brood. If they are contented the battle is half won. Keep them in the open air and sunlight as much as possible, and, most of all, teach them how to breathe pure air properly.

HOSPITAL DIVISION OF PUBLIC HEALTH SERVICE ENLARGES

Prompt Response of the Service to Law Providing Hospital Care for Returned Soldiers

The large amount of work thrown on the hospital division of the United States Public Health Service by the demands of discharged soldiers, sailors, and marines have compelled it to move to larger quarters at Ohio avenue and Fifteenth Street, N.W., Washington, D. C.

Less than two weeks after the law was passed whereby the Public Health Service was designated to provide hospital and sanatorium care for sick and disabled men discharged from military and naval service, a hospital was opened at Houston, Tex., for this important work. The hospital, which has a capacity of 1,500 patients, is in charge of Surgeon J. M. Holt. A second hospital, with Surgeon E. A. Sweet in charge, was opened April 1.

To provide for the care of mental cases, the Public Health Service has taken over the Dansville Hospital in New York State, with accommodations for 250 men. Plans are made for the opening of two tuberculosis sanatoriums, each one of which will provide for 1,500 patients; one will be devoted to the care of colored patients; one to white.

The work of caring for discharged soldiers and sailors, conducted in cooperation with the Bureau of War Risk Insurance, is directed by Assistant Surgeon-General W. G. Stimpson on behalf of the Public Health Service and Assistant Surgeon-General Charles E. Banks for the Bureau of War Risk Insurance.

CITY-WIDE HEALTH CAMPAIGN TO EDUCATE PUBLIC

Health Week Held in Baltimore Drives Home Lessons Taught by Recent Influenza Epidemic

Under the direction of a campaign committee headed by Dr. J. H. Moss of the Hebrew Institute, the recently organized Jewish Health Bureau conducted a health campaign in the city of Baltimore from April 5 to 12. The object of the campaign, according to Dr. Moss, was "to capitalize the recent influenza epidemic." Believing that the public was in a receptive frame of mind in regard to health matters, the bureau decided that the opportunity to drive home needed lessons should not be lost.

The campaign was held in a most thorough fashion throughout the week. Noted speakers who are experts on health subjects addressed the various gatherings and mass-meetings, and all addresses were given in Yiddish as well as in English. On the opening day, April 5, the rabbis in all the synagogues of Baltimore spoke on health topics. The next evening a mass meeting was held at one of the leading theaters, at which a musical program was presented, several well-known physicians spoke, and moving pictures on health topics were shown. This was followed every evening during the week by meetings at the Jewish Educational Alliance, at which some particular subject dealing with health was discussed.

Health Week was merely the forerunner of what is intended to be a widely organized, consistent, and persistent battle against disease through the education of the Jewish people of Baltimore in preventive health measures.

A CONVALESCENT HOSPITAL IN WAR SERVICE

How Burke Foundation Cooperated with the Government—Giving Convalescent Care in the Country to Sick and Wounded from the Navy

By FREDERIC BRUSH, Lieut. M.C., U.S.N.R.F., Superintendent of Burke Foundation, New York

A BRIEF record of one distinctly American civil institution in the world war may afford some values.

The Burke Foundation, maintaining three hundred beds for convalescents in the country, offered its plant and services to both the army and navy when war was declared. Its superintendent enrolled in the Naval Medical Reserve Force, arranged for continuance of the standardized administration, under able and patriotic assistants, and entered active duty on leave of absence. An average percentage of staff members and employees left to enlist in the various services.

The first year saw the maintenance of regular convalescence, plus the final preparation of large numbers of defective men sent us for wound-healing, weight-gain, etc., through definite cooperation with recruiting agencies; war-supplies work of all kinds by employees and patients which was made to displace largely the latter's therapeutic and diversional occupation; and a persistent inculcation of the war spirit throughout, bringing readiness to change and extend duties, adapt, sacrifice, give. A militant governing board pressed all resources toward war-winning.

Fig. 3. The croquet tournament.

In April, 1918, when the navy sick and wounded began to number thousands, where was provision for hundreds only in the Third District, Captain Lung, commanding at New York Naval Hospital, arranged for convalescent sick-care of naval men in the Foundation to the extent of two hundred beds, or of the entire institution with extensions if emergency should demand, the staff and the civilian type of service to continue, with some necessary military modifications.

Fig. 1. Morning "set-up" in the open.

The superintendent was fortunately enabled to be detailed back as naval supervisor; and then began a memorable period which tested the strength and adaptability of this young institution in a way that leaves it hereafter unafraid.

Fig. 2. A safe port.

Country convalescence of navy men was essentially new, and when the authorities at Washington learned that women patients were quartered in the same group of buildings, "doubts were expressed"—to put it gently. But the navy promptly filled their quota, and as they came, civil patients were sent home, often in large groups and only partially recuperated, but giving place with a spirit that we shall never forget—limping away, cheering, longing only for strength to get into the fight.

Here was a group of two hundred young sailors and marines, mostly active, highly fed, not held steady by daily training, quartered at the edge of typically troublesome drink and social conditions of a small country city. They pressed daily with new problems, habits, usages. A rather strict military camp type of rule was set up. Within the institution, "give and take" well expresses the early process, which ended in the old atmosphere, the pre-war tone, pervading.

As this was the first group of sick returned service men in the county, it brought considerable well-meaning but frequently harmful civilian effort to "do something for the boys." Better organization and understanding soon brought about helpful cooperation; and "Burke navy" men

were constantly detailed to aid in the loan-drives, war-fund entertainments, and various supporting functions for miles around.

This large subtraction from New York City's convalescent facilities disturbed social service and other patrons at first, but the Foundation met the need by opening a forty-five capacity farm branch for civilian men, and by finishing and adapting certain waste spaces in the main buildings. The civilian demands also lessened rapidly, due to the abnormal composite of war conditions, and the Foundation came through with the unexpected satisfaction of having maintained its endowment obligations to the city, while meeting at every turn the call of the national government.

Fig. 5. Leaving—fit for duty.

Our city admission department, with its regular activities but little lessened, conducted the trying naval admitting and information work, and found ways somehow to function extensively in many war-aids, and later in the influenza epidemic, well exemplifying the extra energies loosed everywhere by the great stimulus.

Fig. 6. Saluting the colors.

The question of the desirability of country convalescence of naval patients in peace times will not be here considered. The Foundation in the year cared for sixteen hundred navy patients, under military discipline, transporting them and their heavy equipment twenty-five miles each way by motor bus (besides constant transfer of men back and forth to special appointments), did an average of seventeen hundred surgical dressings per month (seventy empyemas were present at one time), kept up the voluminous naval "paper-work," entertained boards of survey, the paymaster regularly, representatives of the Federal Vocational Board et al., cooperated constantly with war-relief agencies, and maintained supervised recreation and therapeutic occupation — done with an overworked staff and a shifting force of employees, with a record of one death from disease and one accident that required surgical repair, and a minimum of serious disciplinary exactions.

Fig. 4. The navy "crip" team beat the country's best.

A comparison of naval with standard civilian convalescence would bring out much of interest, mainly that the naval convalescence is much the less successful, from a medical point of view. Yet it shows the measure put upon this unique war-time service by the naval authorities that a rating of 100 per cent throughout has been given us in the official report on about forty auxiliary civil hospitals utilized in this district.

Fig. 7. A game of soccer, better for the boys than massage.

One day, when our place was filled with all classes of patients, came a telephone message: "Can you take twenty to thirty commissioned officers this afternoon?" "Yes," was the answer, given with no vision as to how it could be done. In five hours all was arranged, with a new dining service opened, etc. This is told to indicate the rather narrow motive of this sketch: Hospitals which got deepest into our war work, like individuals, got most in return. This institution by saying at the outset, "Yes, we are ready, use us fully"—acquired an experience, an assurance, a maturity, that years of civilian practice would not have duplicated. The essence of it is in a feeling of new flexibility and capability, with a stronger sense of obligation to the community.

THE IMPORTANCE OF DENTAL SERVICE IN THE HOSPITAL

Importance in Diagnosis and Systemic Disease—Possibilities of Scientific Research in Dental Department—Large Field of Operation Found Among the Children

By ALFRED A. CROCKER, Cincinnati, Ohio

DENTAL service is necessary along with medical service in healing systemic disease. The relationship of the teeth to systemic diseases as foci of infection, or at least as relay posts from which the infection is increased, has so repeatedly been demonstrated that most physicians recognize it as a valuable element in their diagnosis. The examination of the mouth condition of the patient furnishes valuable data in determining the treatment of the patient while in the hospital, as it tells whether, owing to the presence of pyorrhea, alveolar abscess, blind abscess, impacted unerupted teeth, the teeth can be counted in the treatment to follow, or eliminated from consideration. Work for the dental department of a hospital is furnished by maternity cases, children's teeth, and cases in which arsenic, iodides, mercury, or phosphorus are prescribed. Facilities for difficult extractions under anesthesia and for scientific research are also afforded by a hospital dental clinic.

During a recent visit to the Jewish Hospital in Cincinnati, where they have a dental clinic with Dr. Samuel Rabkin in full time attendance as dental clinician, I was shown the hospital card on which the tooth condition of all patients is recorded by him. All his findings are recorded thereon and furnish data which very often help the hospital board, together with the records placed on the same card by physicians and specialists in the hospital's other departments, in arriving at the correct diagnosis and subsequent relief and restoration of the patient to full health and usefulness. As Dr. Hexter, the supervisor, explained, it is not enough to place the patient on his feet; to restore the patient to his or her normal self, if possible, is the aim of the hospital, and it takes an analysis from all departments to do it property. Another work performed by the dental clinic at the Jewish Hospital is the care of children's teeth, the advantages of which all welfare authorities readily recognize. This work is part of the oral hygiene movement which is so active in all parts of the United States.

Besides the hospital dental work above outlined, research work in dental pathology and dental bacteriology is carried on in connection with cases presented at the hospital. This work has shown valuable results and has been of much benefit to the patients treated at the hospital.

A visit was also made at the Cincinnati General Hospital, where Dr. W. S. Locke has charge of the dental department. Patients arriving at the hospital for diagnosis and treatment are taken to the dental clinic at the direction of the attending physician. If the patient is unable to walk, a wheeled chair or a wheeled stretcher is used to convey the patient there. After the instrumental examination of the teeth, the dental clinician sends the patient to the x-ray department for a complete dental roentgenographic examination. Ten films are taken, five upper and five lower, covering the complete mouth. One of the large machines is used on a two and one-half spark gap. The developed films are returned to the dental department and, together with the clinical report thereon, sent to the attending physician with the dental recommendations for the case. The dental diagnosis, along with the attending physician's diagnosis of symptoms and other tests, such as urinalysis, bacteriological, etc., make up the case history, which is kept on an indexed chart or card. In all cases the clearing up of mouth conditions accelerates recovery from the systemic conditions. Part of every day is devoted to the care of children's teeth at the Cincinnati Hospital. Children from the city and neighborhood are brought to the hospital. Care of their teeth is along preventive lines and correction of irregularities and dental advice to the parents. Children from five years up receive this attention and learn the value of care of the teeth.

Oral surgery is performed for all patients coming to the hospital, who receive immediate attention by the skilled operatives in the dental department.

Dentistry in the hospital has shown its value in so many ways and so many patients arriving at the hospital require dental care that the department is very much in demand.

Pourquoi soigner vos dents?
Soins journaliers indispensables
Une dentition propre ne se carie jamais
Rincez-vous la bouche après chaque repas pour en ôter toute particule alimentaire qui provoquerait la carie des dents.
Brossez-vous soigneusement les dents le matin et le soir; les dents se carient davantage la nuit que le jour
N oubliez pas de vous brosser le côté interne des dents.
Une manière défectueuse de se brosser les dents fait contracter les gencives et facilite la perte des dents.
Brossez-vous les dents du haut, de haut en bas; celles du bas, de bas en haut, jamais dans la direction horizontale.
Soins speciaux aux enfants
Les soins à donner aux dents doivent commencer avec la
Pourquoi soigner vos dents?
Les dents les plus importantes sont les molaires quel'enfant perce vers sa sixième année.
Ce ne sont pas des dents de lait, mais des dents permanentes.
Surveillez-les et sauvez-les.
Beaucoup de maux appelés maladies d'enfants proviennent des dents.
Il est plus important pour les enfants de se brosser les dents que de se laver la figure.
Entretenez vos armes
Faites-vous examiner les dents par un bon dentiste au moins une fois par an. Agissez de même pour vos enfants, vous
éviterez la douleur, la dépense et les stations pénibles dans le fauteuil du dentiste.
Les trois quarts des dents cariées sont causées par l'absence de soins des dents de lait.
Sauvez la dent en la faisant plomber
Si une dent est sensible au sucre, au froid, à la chaleur, c'est qu'elle s'altère, faites la examiner sans retard.
Si les gencives saignent sans raison, cela indique une inflammation sérieuse.
Pour vaincre le mal de dents
Mieux vaut prévenir le mal que le soigner.
Une dépense de 5 francs pour soigner la première dent abîmée peut économiser 50 francs pour la deuxième.
Une bouche saine et des dents propres sont l'une des meilleures et des plus sûres sauvegardes de la santé.
Quand on perd une dent, c'est pour toujours; la meilleure imitation ne la remplace pas.
Se brosser les dents est aussi important pour les pauvres que pour les riches pour l'ouvrier que pour la femme élégante
BONNES DENTS
BONNE MASTICATION
BONNE DIGESTION
BONNE SANTÉ

"Why Care for Your Teeth?" an eight-page pamphlet issued by the Bureau d'Assistance à l'enfance of the American Red Cross in France, contains these delightful French babies drawn by L. Stephany.

1. Upon leaving the table I always rinse my mouth. 2. Morning and evening I brush my teeth. 3. Brush your teeth up and down. 4. I have only one tooth but it is clean. 5. Do not forget to brush your teeth on the inner side. 6. Teach the use of the toothbrush to all children, girls as well as boys. 7. Look at me! I didn't take care of my teeth. 8. I am uncomfortable; it must be my teeth. 9. How a neglected tooth can make a swollen cheek. 10. If you wish to be pretty do what I am doing. 11. She washes her face but does not brush her teeth. 12. Have your teeth examined by a good dentist once a year. 13. I can't eat candy any more; I must go to the dentist. 14. If you had brushed your teeth you would not suffer from them

MEDICAL ASEPSIS IN FRENCH AND ENGLISH HOSPITALS*

Experience Shows That Medical Asepsis Is More Efficient Than Isolation in the Prevention of Cross-Infection

By D. L. RICHARDSON, M.D., Superintendent Providence City, Providence, R. I.

MEDICAL asepsis is surgical asepsis applied to the control of infectious diseases. The technique, based on the avoidance of contact and the sterilization of all contaminated objects, is familiar to every physician and nurse from operating room experience. A second term now frequently used carries the same meaning, namely "aseptic nursing."

Medical asepsis was first introduced in the eighties of the last century by pediatricians. They were accustomed to see the ravages of contagious disease among children in institutions. It was at this time customary to put children in large wards. The pediatricians first demanded small rooms, and secondly, real isolation by practicing what the surgeons were doing in their work.

Dr. Bourneville, about this time, built at Bicêtre, France, a model pavilion with rooms for a single patient; in this pavilion were treated measles, scarlet fever, diphtheria, etc.

Professor Richard, of Val-de-Grâce, 1890, advised individual isolation for measles.

In the same year Sevestre concluded a study of the complications of measles and made this statement: "The seriousness of measles in hospitals, especially in the Hôpital des Enfants Assistés, results almost always from complications brought on by secondary infections, particularly bronchopneumonia. It is in general neither a manifestation of measles nor caused by cold, but is positively the result of secondary infection." He advised the separation of straight measles patients from complicated cases and the practice of medical asepsis.

At the Hôpital des Enfants Malades in Paris, Dr. Grancher urged medical asepsis in 1888. In 1889, he reported that the individual isolation of measles patients and the isolation of diphtheria in a special pavilion did not reduce either cross-infection or mortality. After ten years' experience, from 1890 to 1900, he concluded that isolation without medical asepsis was useless and that the rules of asepsis should be rigidly enforced.

This hospital was a general hospital for children. Into the wards he admitted diphtheria, scarlet fever, and measles patients among the miscellaneous diseases. He surrounded the beds of patients sick with these diseases with a wire screen and within this enclosure were kept the nursing utensils for that patient. A gown was worn by every one entering the barrier, and hands were washed on leaving. During the ten-year period, 6,541 patients were treated in his wards. Diphtheria was admitted forty-three times, and only one case developed. Scarlet fever was introduced, and seven cases resulted. Less success was obtained with measles, but Grancher was satisfied that even measles was not carried by the air.

In 1900, Moizard, who was also connected with the Hôpital des Enfants Malades, reported that among 5,016 children suffering from contagious

Fig. 1. Room used in the box system of isolation at the Pasteur Hospital, Paris, and its furniture. (From the *Revue d'Hygiène*, March 20, 1912.)

diseases, only seven cross-infections occurred. Six were cases of measles and one of diphtheria. He practiced individual isolation and asepsis.

On the strength of these experiments, 500,000

*This is the second article in a series on the care of infectious diseases in hospitals. The first, entitled "The Care of Infectious Diseases in Hospitals," appeared in the April issue of The Modern Hospital; the third, on the construction of infectious disease hospitals, will appear in June.

francs were raised for the building of the Pasteur Hospital. This was completed in 1900.

It consists of two pavilions of two stories, each of which affords accommodation for sixty pa-

Fig. 2. Bed-isolation system at North-Eastern Hospital, London, showing bed and equipment. Note the overalls for the use of the nurse. (Photograph lent by Dr. Frederic Thompson, superintendent.)

tients. In each ward there is an individual isolation division of twelve beds and a convalescent division containing an equal number.

The individual isolation section consists of twelve separate rooms, or boxes, which have a door leading to the ward corridor and another opening upon a narrow outside balcony. The corridor walls are glazed, as is also the partition between every other room. Each room is provided with a sink for washing the hands with warm water. A portable bathtub can be wheeled into the room, filled from the sink, and emptied at a floor drain, in each room. The walls of the room are washable, partly of glass and partly of some kind of vitrified material.

The convalescent *salle*, or hall, at the end of the building, contains twelve beds, and is subdivided by partial partitions into four beds with three beds each. Each section is provided with the same facilities for washing the hands and bathing as the boxes. The ward as a whole is provided with the usual hospital utility rooms.

The hospital admits all kinds of infectious diseases, including smallpox. Dr. Martin, the superintendent, says, however, that if cases are very numerous, it would be better to devote a whole ward to the disease. All patients are vaccinated on admission.

Among 2,745 patients admitted, there were 524 cases of smallpox, 126 of measles, 443 of diphtheria, 7 of hydrophobia, 163 of erysipelas, and 192 mothers with sick children or children with sick mothers; among these were 8 cross-infections, 5 of smallpox, 2 of erysipelas, and 1 of diphtheria.

In the five years 1900-1905, 5,000 patients were treated in this hospital with a cross-infection rate of two per thousand.

It might be well at this point to describe briefly the various methods of isolating patients. The "barrier system" refers to isolation in an open ward by putting a screen about the bed, marking it by a tape stretched between two upright posts at the foot, or by hanging on the bed an identifying card. The bed is placed some 9 to 12 feet from the next patient. It is customary to barrier only a very few at one time in such a ward, which is usually occupied by convalescents or those not suffering from infectious diseases.

The "bed isolation" system is much the same except that the open ward as a whole is used for isolating various kinds of infectious diseases instead of using separate rooms.

The "room" or "box" system consists of separate rooms with complete partitions.

The "cubicle" system refers to isolation in rooms with low partitions between them. In both the box and the cubicle systems the walls may be solid, or glazed to provide for better observation of the patients. These boxes or cubicles usually open upon a central corridor, two rows arranged on either side, or they may communicate with a corridor formed by one row of these rooms and the outside wall of the building.

The "isolation block" is still another method. The rooms in such a block communicate with each other by an open-air balcony only. The interior walls may be glazed for observation purposes, but there is no interior communication.

Whatever the method of isolation, surgical cleanliness is rigidly carried out. Each room is provided with set bowls, the water delivered by forearm or foot levers, or with an ordinary washbasin. The latter is to be condemned because it is impossible to keep the basins emptied after each washing. Each unit is provided with furniture and nursing utensils, and whatever passes from one unit to another must be properly sterilized. The nurse and doctor wear gowns. The frequence with which they are put on depends upon the individual hospital.

The first attempt at aseptic nursing in Eng-

land was made at the Monsall Hospital, Manchester, under Dr. A. K. Gordon as superintendent. It was begun in 1902, and the barrier system was used much after the method used by Grancher at

Fig. 3. One of the cubicle blocks (partial system) of the South-Western Hospital, M.A.B., London. (From *The Hospital*, London, August 24, 1912.)

the Hôpital des Enfants Malades in Paris. Any bed in the ward was selected, and about the bed was placed a screen on which were hung sheets wet with some disinfecting solution. These wet sheets were later dispensed with and tape was stretched at the foot of the bed to indicate that it was a barriered case. The nurse wore an overall and rubber gloves when tending the patient. Mild scarlet fever, scarlet fever and diphtheria, scarlet fever and measles, chicken pox, and whooping cough were treated. The cross-infections developing were chicken pox and measles.

Aseptic nursing was introduced into the North-Eastern Hospital, London, in 1904. The wards in this hospital, like other English hospitals, were large wards, and there were few small rooms for isolation purposes. Two wards were reconstructed into boxes (single row) opening upon an inside corridor. The doors to the corridor were dwarf, being 3¼ feet high. These were kept open except when the patient was out of bed.

The two wards combined had a bed capacity of twelve; ten of these were for one patient only and one was for two patients. Each room was provided with a pedal spray basin.

In these rooms were treated scarlet fever, diphtheria, rubella, whooping cough, mumps, erysipelas, and their cross-infections, but not chicken pox or smallpox. Patients with measles or with other diseases and history of measles were admitted to only one of these wards.

During a period of two years previous to August, 1908, there were treated in these boxes 660 patients. There developed the following cross-infections: 6 cases of scarlet fever, 3 cases of rubella, 2 cases of measles, 1 case of whooping cough, and 3 cases of chicken pox, amounting in all to 15 cases or 2.3 per cent of the total number of patients treated.

In 1905 and 1906, the cubicle system was put into operation. There were built into large wards No. 7, 8, and 33, two rows of cubicles, one on either side of a central corridor. The walls between the cubicles were 7 feet high. The doorways were staggered, not opposite. Each cubicle was provided with a pedal spray basin and a single bed. The total capacity was for thirty-four patients.

During the two years prior to August, 1908, 1,290 patients were admitted to these wards. The patients were for the most part doubtful scarlet fever patients; many of them were proved to have scarlet fever, and, when the disease was recognized, they were removed to scarlet-fever wards. There were also a certain number of diphtheria patients suspected of having scarlet fever also. Some were in the incubation period of measles and other infectious disease; when these developed, the patients were sent to other wards. All other infectious diseases were admitted except measles. Only during the first six months of this period was rubella included.

The following cross-infections occurred: 5 cases of scarlet fever, 2 cases of measles, 2 cases of diphtheria, 3 cases of chicken pox, 3 cases of rubella, and 1 case of whooping cough, making a total of 16.

To account for these there were treated many cases of true scarlet fever for the first six months, many cases of rubella, ten with whooping cough, one with chicken pox, and ten with measles.

The cross-infection rate was 1.2 per cent.

In 1912 it was decided that an attempt at "bed

Fig. 4. View showing the full length of the bed-isolation ward at North-Eastern Hospital, London. (Photograph lent by Dr. Frederic Thompson, superintendent.)

isolation" in an open ward be made. This was suggested by the report by Rundle and Burton of the Fazakerly Hospital, Liverpool. The ward selected for this experiment had a capacity of

twelve beds. It was well lighted and ventilated. Each bed had 195 square feet floor space and 15 feet wall space. Washbasins were used instead of the pedal spray. No toys, books, papers, or the like were allowed in the ward. The patient was kept in his bed throughout the hospital residence. When any one was to touch the patient or anything in that unit, he washed his hands in the basin, using soap and a scrub brush in 1:2000 compound solution of cresol, and a gown was put on. After the patient was tended the gown was taken off and the washing repeated. The best nurses were selected for this work, and the day force consisted of five and the night force of two.

No measles or smallpox patients were admitted. The patients were mostly children. Part of the time advantage was taken of immunity in placing the patients in the ward. For instance, a child with chicken pox would be put next to a patient who perhaps had scarlet fever but who gave a history of chicken pox, or had old scars.

During two years, from February 12, 1912, 224 patients were treated. Many had multiple diseases and many did not have transmissible infections.

A summary of the different diseases treated is as follows: 112 cases of scarlet fever, 63 cases of diphtheria, 24 cases of varicella, 47 cases of whooping cough, 11 cases of mumps, 2 cases of measles, 6 cases of rubella, and 67 miscellaneous cases, making a total of 332.

The average stay of each patient was twenty-seven and a half days. Two hundred and sixty-two of the patients were under ten years of age. They were in all stages of the diseases.

There were the following cross-infections: 2

Fig. 5. Box-room ward at North-Eastern Hospital. The doors of these boxes are left open except when the patient is out of bed. (Photograph lent by Dr. Frederic Thompson, superintendent.)

cases of scarlet fever, twenty-two months after the ward was opened; 5 cases of whooping cough; 5 cases of measles, from a single case; and 8 cases of chicken pox, making a total of 20.

The cross-infection rate was 9 per cent. It will be noted that measles and chicken pox constituted thirteen of the twenty cross-infections. For the data about the North-Eastern Hospital, I am

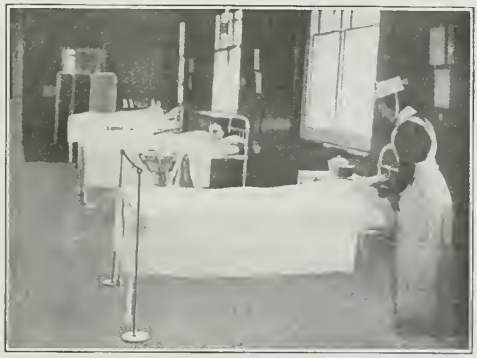

Fig. 6. The cord barrier system as used at Plaistow Hospital, London. The cords are seen stretched between standards at the foot of the beds. The disinfecting basins and nurses' overalls are on tripods between the beds. (From *Nursing Times*, June 6, 1908.)

indebted to Dr. Frederic Thompson, its superintendent, and to Dr. Clifford Price, who assisted him. From his experience Dr. Thompson concluded that measles is air-borne for a short distance during the first days of the disease and chicken pox up to the third day.

For the following information, I am indebted to Dr. J. Biernacki, superintendent of the Plaistow Hospital, London.

At this hospital, the barrier system has been used quite extensively, the box, or room system and the cellular block system to some degree. Aseptic nursing has been rigidly carried out with all three systems.

The barrier system was used in the scarlet-fever and diphtheria wards. No more than two or three patients were barriered at the same time. The bed was marked by a cord stretched between two upright standards set at the foot of the bed.

During a period of eighteen months previous to 1911, the following cases had been barriered in the scarlet fever ward: 36 cases of scarlet fever and diphtheria; 33 septic cases of scarlet fever; 16 cases of scarlet fever and whooping cough, 6 cases of scarlet fever and vaginitis, 7 cases of scarlet fever and ringworm, 2 cases of scarlet fever and mumps, and 62 cases of scarlet fever, doubtful or combined with other diseases and contacts, making a total of 162. There were two cross-infections with scarlet fever.

Barriered in the diphtheria wards there were 36 tracheotomy cases, 23 cases of diphtheria and questionable scarlet fever, 11 cases under observation for scarlet fever, 4 cases of scarlet fever and

whooping cough, 2 cases of diphtheria and chicken pox, 2 cases of diphtheria and scarlet fever, and 30 other cases of various combinations and for observation, making a total of 126. There was one cross-infection with scarlet fever.

Measles and chicken pox are now barriered by Dr. Biernacki.

In isolation rooms, or boxes, fifty-five cases including scarlet fever, diphtheria, measles, tonsillitis, chicken pox, whooping cough, and miscellaneous cases were treated during an eighteen months' period, and no cross-infection developed.

The cellular block at the Plaistow Hospital consists of rooms, the door to each opening upon a veranda. The interior walls are of glass. The washbowls are on the veranda. During a period of eighteen months the following diseases were treated in this block: 47 cases of scarlet fever; 24 cases of scarlet fever and diphtheria; 19 cases of diphtheria; 8 cases of chicken pox; 9 cases of measles and laryngeal diphtheria; 21 miscellaneous and mixed cases, and 8 cases of measles, making a total of 136 cases.

There were no cross-infections. In fact, during a three-year period, during which other diseases, including typhus fever, but not smallpox, were admitted, no cross-infections developed.

At the Eastern Hospital, London, a twenty-bed ward was divided into ten rooms or boxes on each side of a central corridor. The partitions are glazed from three feet above the floor. Each room is provided with a pedal spray. All utensils are sterilized in steam sterilizers.

From September 6, 1910, to March 25, 1911, 142 patients had passed through this ward whose diseases were classified as follows: 16 cases of scarlet fever; 21 cases of scarlet fever and other infectious diseases; 5 cases of diphtheria; 15 cases of diphtheria and other infectious diseases; 25 cases of measles; 3 cases of chicken pox; 13 cases of rubella; 12 cases of miscellaneous infectious diseases; and 32 cases of non-infectious diseases, making a total of 142. There was no selection of cases for admission. One cross-infection, chicken pox, developed, an incidence of .7 per cent.

In 1908, Dr. Foord Caiger, superintendent of the South-Western Hospital, London, reported the results of an experience of eighteen months, beginning January 1, 1907, with the cubicle ward of thirty-two beds and aseptic nursing. The cubicle walls are 7 feet high and of glass above a height of from 2 to 3 feet above the floor. They are arranged in a double row on either side of a 5-foot corridor, into which a dwarf door 3 feet and 5 inches high swings from each. During the period of eighteen months, 704 patients were treated in these cubicles.

The diseases were as follows: 289 cases of scarlet fever convalescence; 163 cases of scarlet fever; 82 cases of rubella; 22 cases of measles; 31 cases of diphtheria; 17 cases of whooping cough; and 100 cases of mixed, contact, and miscellaneous disease, making a total of 704.

There were sixteen cross-infections, an incidence of 2.3 per cent. The cross-infections consisted of 6 cases of scarlet fever, 6 cases of chicken pox, 2 cases of rubella, and 2 cases of measles, making a total of 16 admitted to these wards.

During the year 1911, among 269 patients admitted to this ward the cross-infection incidence was 1.8 per cent, whereas in the hospital as a whole it was 7.6 per cent.

After his early experience, Dr. Caiger refused to put in the cubicles measles and chicken pox in the acute stage. Smallpox was also excluded.

Dr. C. Rundle, superintendent of the Fazakerly Hospital, Liverpool, has introduced a somewhat different and original system of bed isolation.

For this purpose, two large wards in one pavilion were used. They were separated only by a short hall. In each are twelve beds, each patient having 2,100 cubic feet of air space. Washbowls are placed on a table in the middle of the ward; additional bowls are placed beside the bed when isolation is prolonged or when patients require much attention. Each isolated bed has its own utensils, except for those that are in common use, and these are sterilized. The ward has been used for lesser transmissible diseases, for convalescents from various diseases, and for acute, highly infectious diseases. For such diseases as variola, pertussis, scarlet fever, and diphtheria, bed isolation and asepsis is rigid. Patients are kept in bed until they are quite convalescent. For all others, only ordinary cleanliness is employed, except in the case of scarlet fever and diphtheria convalescents with nasal and aural discharges. These are allowed to be about and mingle freely.

During 1910 and 1911 and up to March, 1912, 741 patients were treated in these wards.

These patients suffered from the following diseases: 76 cases of scarlet fever; 42 cases of diphtheria; 42 cases of measles; 13 cases of rubella; 41 cases of varicella; 13 cases of pertussis; 13 cases of typhoid; 42 cases of puerperal fever; 233 cases of erysipelas; 58 cases of tonsillitis; 33 cases of gastroenteritis; 18 cases of bronchitis and bronchopneumonia; 18 cases of skin diseases; 28 cases with no disease; and 104 cases of other and combined diseases, making a total of 774. Among this number were only two cross-infections, both scarlet fever, an incidence of 0.2 per cent.

These remarkable results show the courage and executive ability of Dr. Rundle and his assistants.

HOSPITAL ACCOUNTING

Comparative Balance Sheets—Comparative Statistics of Patients Treated—Appendix—Materials and Supplies—Fixed Assets—Corporation Expenses

By CHARLES A. PORTER and HERBERT K. CARTER of the Staff of The Modern Hospital

[Continued from April issue, p. 255]

SCHEDULE 4

COMPARATIVE BALANCE SHEET FOR YEARS ENDED DECEMBER 31, 19.... AND 19.....

Capital Assets

	19....	19.....	Increase	Decrease
Hospital properties and equipment—				
Land and buildings	$.....	$.....	$.....	$..... ....
Furniture and fixtures	....	....	....	....
Equipment	....	....	....	....
Apparatus and instruments	....	....	....	....
Ambulances	....	....	....	....
Miscellaneous	....	....	....	....
Investments—				
Mortgages receivable	....	....	....	....
Bonds	....	....	....	....
Stocks	....	....	....	....
Real property	....	....	....	....
Miscellaneous	....	....	....	....
Reserve for Depreciation	....	....	....	....
Total capital assets	$.....	$.....	$.....	$..... ....

Current Assets

Bills receivable	$.....	$.....	$.....	$..... ....
Treasurer's accounts receivable	....	....	....	....
Superintendent's accounts receivable	....	....	....	....
Material on hand	....	....	....	....
Supplies	....	....	....	....
Cash, Superintendent	....	....	....	....
Cash, Treasurer	....	....	....	....
Prepaid insurance	....	....	....	....
Prepaid taxes	....	....	....	....
Prepaid interest	....	....	....	....
Prepaid expenses	....	....	....	....
Total current assets	$.....	$.....	$.....	$..... ....
Grand total assets	$.....	$.....	$.....	$..... ....
Deficit	$.....	$.....	$.....	$..... ....
Total	$.....	$.....	$.....	$..... ....

SCHEDULE 4

COMPARATIVE BALANCE SHEET FOR YEAR ENDED DECEMBER 31, 19...., AND 19.....

Capital Liabilities

	19.....	19.....	Increase	Decrease
Capital account	$.....	$.....	$.....	$..... ....
General endowment fund	....	....	....	....
Endowed Bed Fund	....	....	....	....
Partly Endowed Bed Fund	....	....	....	....
Other fund reserves (list each)	....	....	....	....
Bonds outstanding on hospital property	....	....	....	....
Mortgages payable	....	....	....	....
Total capital liabilities	$.....	$.....	$.....	$..... ....

Current Liabilities

Loans and notes payable	$	$	$	$
Advance payments by patients				
Overpayments by patients				
Treasurer's accounts payable				
Superintendent's accounts payable				
Total current liabilities	$	$	$	$
Grand total liabilities	$	$	$	$
Surplus				
Total	$	$	$	$

If grand total of liabilities is greater than grand total assets, there is a deficit; if vice versa, a surplus. The more years this statement covers, the more interesting it is.

SCHEDULE 5

STATEMENT OF INCREASE OR DECREASE OF CAPITAL RESERVE FUNDS

Description of funds	Amount first of year	Amount received	Expended	Amount end of year	Increase	Decrease	Proposed a mount of fund
General endowment	$	$	$	$	$	$	$
Endowed Bed Fund							
Partly Endowed Bed Fund							
Reserve for depreciation							
Other reserve funds (list)							
Total reserve	$	$	$	$	$	$	$

SCHEDULE 6

SUMMARY OF INCOME AND EXPENDITURES

Expenses

	This year	Last year
Administration	$	$
Profess onal care of patients		
Department expenses		
House and property expenses		
Total operating expenses	$	$
Corporation expenses		
Out patients and social service		
Grand total	$	$

Revenue

Patients' payments	$	$
City patients		
Interest, dividends, and rentals		
Miscellaneous		
From operation and investments		
Needed from voluntary sources		

SCHEDULE 7

COMPARATIVE STATISTICS OF PATIENTS TREATED

Wards and Private Rooms

	Present year	Past year	Increase Decrease	Percent
Census January 1—				
Medical wards, male	$	$	$	$
female				
Surgical wards, male				
female				
Private rooms, male				
female				
Total	$	$	$	$

Admitted during year—					
Medical wards,	male	$..... ..	$..... ..	$..... ..	$..... ..
	female	....	....	....	....
Surgical wards,	male	....	....	....	....
	female	....	....	....	....
Private rooms,	male	....	....	....	....
	female	....	....	....	....
Total		$..... ..	$..... ..	$..... ..	$..... ..
Discharged during year—					
Cured		$..... ..	$..... ..	$..... ..	$..... ..
Improved		....	....	....	....
Unimproved		....	....	....	....
Transfers to other institutions		....	....	....	....
Died		....	....	....	....
Total		$..... ..	$..... ..	$..... ..	$..... ..

Emergency Ward

		Present year	Past year	Increase Decrease	Percent
Census January 1,	male	$..... ..	$..... ..	$..... ..	$..... ..
	female	....	....	....	....
Admittances,	male	....	....	....	....
	female	....	....	....	....
Total treated,	male	....	....	....	....
	female	....	....	....	....
Discharged,	male	....	....	....	....
	female	....	....	....	....
Total		$..... ..	$..... ..	$..... ..	$..... ..

	Present year	Past year	Increase Decrease	Percent	Average per day
Census December 31, male	$..... ..	$..... ..	$..... ..	$..... ..	$..... ..
female	....	....	....	....	....
Visits to ward during year	....	....	....	....	....
Average visits per patient	....	....	....	....	....
Average daily cost per emergency ward patients	....	....	....	....	....
Total	$..... ..	$..... ..	$..... ..	$..... ..	$..... ..

Dispensary

Census January 1,	male	$..... ..	$..... ..	$..... ..	$..... ..	$..... ..
	female	....	....	....	....	....
Admittances,	male	....	....	....	....	....
	female	....	....	....	....	....
Total treated,	male	$..... ..	$..... ..	$..... ..	$..... ..	$..... ..
	female	....	....	....	....	....
Discharged		....	....	....	....	....
Census December 31		....	....	....	....	....
Total visits during year		....	....	....	....	....
Average daily cost per visit		....	....	....	....	....
Average visits per patient		....	....	....	....	....
Average cost per patient		....	....	....	....	....

		Present year	Past year	Increase Decrease	Percent
Census December 31—					
Medical wards,	male	$..... ..	$..... ..	$..... ..	$..... ..
	female	....	....	....	....
Surgical wards,	male	....	....	....	....
	female	....	....	....	....
Private rooms,	male	....	....	....	....
	female	....	....	....	....
Total		$..... ..	$..... ..	$..... ..	$..... ..

	Present year	Past year	Increase Decrease	Percent	Average per day
Total patients'—days treatment	$	$	$	$	$
Free ward					
Endowed bed					
Pay ward					
Private room					
Total	$	$	$	$	$
Average time per patient in hospital					

Census January 1, plus admittances and less discharges, and census December 31, divided into patients days treatment, equals average time per patient per day in hosiptal.

Cost

	Present year	Past year
Daily average cost	$	$
Ward patients		
Private room patients		

Ambulance

	Present year	Past year	Increase Decrease	Percent	Average per day
Ambulance calls during year	$	$	$	$	$
Average calls per day					
Average cost per call					
Patients treated in emergency ward by ambulance surgeon and transferred					
Patients treated at place of call and left there or taken to tother institutions					
Total	$	$	$	$	$

X-Ray

Examinations during year	$	$	$	$
Average per day				
Average cost per examination				
Total	$	$	$	$

Social Service

Census January 1	$	$	$	$
New patients				
Discharges				
Census December 31				
Total number of visits				
Average per day				
Average cost per visit				
Average cost per patient				
Total	$	$	$	$

Summary

Total treated in all departments	$	$	$	$
Average per day in all departments				
Average number of employees boarded				
Average daily cost of provisions for all people fed				
Total	$	$	$	$

APPENDIX

MATERIALS AND SUPPLIES

It is just as necessary to keep a proper record of those things for which money has been spent as it is to account for the money itself. Therefore the storage and insurance of materials and supplies, and the proper records showing their receipt and delivery, are as important as the bookkeeping system used in the executive offices.

In most of the hospitals recently built the storerooms have been designed with a view of facilitat-

ing the receipt and insurance of supplies, as well as to protect the goods against vermin, moisture, and other destructive forces. In older hospitals, where no special care has been taken to build a suitable storeroom, the executives should analyze their needs with regard to the storage of goods, and as far as possible arrange the racks, bins, cupboards, shelves, etc., in a manner that will permit of ready access of any supplies needed, as well as to permit the placing of new goods received without unnecessary handling.

The larger hospitals, using large quantities of materials and supplies, are more likely to appreciate the importance of careful storage, and the proper kind of records controlling their receipt and issuance, than are the smaller institutions whose supplies are purchased as needed.

DELIVERY OF STORES

Stores should be delivered only on requisiton. In some hospitals a messenger is employed to deliver stores to the departments ordering them. In other cases stores are delivered direct to the person presenting the requisition. In order to avoid confusion, each institution should adopt some method of delivery and make it standard. The department head receiving goods should indicate their receipt on the requisition.

STEWARD'S DEPARTMENT

One of the most important departments of a hospital is that under the supervision of the steward. In this department the operating efficiency rests almost solely on the person in charge.

Wherever it is practicable to do so, standards of consumption should be set. Under the direction of a capable executive of this department meals will be not only promptly and satisfactorily served, but savings inaugurated which will insure minimum operating costs.

SUPERINTENDENT'S CASH

At the end of each business day the cashier should deposit the receipts of the previous day. Where the Superintendent acts as the Cashier, the deposits should be made to the Treasurer's account. The funds required by the Superintendent are issued by the Treasurer.

In order to save time in the large institutions, the Cashier should receive all money and the chief clerk make the deposits. This gives a good internal check.

Checks for operating expenses, refunds to patients, etc., are made out by the chief clerk and then submitted for the approval and signature of the Superintendent.

AUDITS

The custom of having an independent yearly audit made by a public accountant has become so well established as to make it unnecessary to urge hospital executives to adopt this measure as a regular custom.

It is only by this means that the administrators can get a proper interpretation of legal and other documents, a full knowledge of the proper classification of securities, and be sure that the hospital is being conducted on sound business principles.

A properly prepared auditing report furnishes a sound basis from which to plan the future conduct of the hospital.

APPRECIATION

As a general rule, it is not good practice to appreciate a capital account.

Land should appear on the Balance Sheet at cost. Although it may enhance in value, increased taxes usually follow without any increase in earning power or income. It is, therefore, best to carry land on the books at cost, although it may be clearly shown that values have increased. A distinction should be made between improved and unimproved property, because the latter may be incumbered with taxes and other carrying charges. By making this distinction the executives may determine the amount to be set aside as a reserve to cover these carrying charges.

It is, therefore, obvious that the only way to determine appreciation is by actual sale of the property.

DEPRECIATION

Buildings should appear on the Balance Sheet at cost, and a sufficient depreciation reserve set aside each year to cover wear and tear and obsolescence. This percentage may vary from 6 percent on wooden buildings down to 1½ percent on modern fireproof brick and stone and concrete structures.

Machinery and equipment may also appear on the Balance Sheet at cost, provided a sufficient depreciation reserve fund be made to cover wear, tear, and obsolescence. The percentage usually set aside for this purpose varies from 10 to 20 percent, and replacements are charged against this reserve fund.

Boilers have to be replaced, engines wear out or become obsolete, and other machinery wears out and is replaced.

Apparatus and instruments should have a proper reserve fund.

The money in these reserve funds does not have to be invested in securities, but may be used to carry on the business of the institution.

Small tools should be revalued at inventory periods for Balance Sheet purposes and to disclose loss or theft.

Furniture and fixtures is an asset with but little residual value, and the larger proportion should be charged off as expense at cost.

Houses become less valuable through age, so that they should be revalued at each inventory, and the loss or gain charged to profit and loss.

Ambulances, etc., depreciate rapidly, but so many replacements may be made that only a charge for accrued wear and tear should be applied.

FIXED ASSETS

SINKING FUNDS

A reserve fund always represents an asset. In many mortgages secured by the hospital land and buildings it is provided that a certain amount shall be set aside each year to clear the debt at maturity. These reserves properly appear on the Balance Sheet as assets. It should be clearly shown what investments are held to cover these reserves and what disposition has been made of uninvested cash. Such reserves are commonly called "sinking funds."

When bonds mature serially, they should be shown as a reduction from the total outstanding bonded debt—not carried as an asset. Proper safeguards should be taken so that matured bonds cannot be misused.

RESERVE FUNDS

Funds set aside on account of depreciation are called depreciation reserve funds. There are also reserves for bad debts, etc. These reserves are assets, and may appear on the balance sheet as such or as reductions of capital.

It is not the usual custom to invest reserves of this kind in specific assets unless it is intended to use them and the interest accrued thereon for the building of another institution, etc.

The book value of capital asset plus the depreciation reserve should total the capital account.

Other fixed assets are investments, such as bonds not purchased to be sold at a profit, etc.

Depreciation reserves should be large enough to have the cost of repairs charged against them and yet have them extinguish the account in a certain number of years.

Insurance companies have tables showing the rates to be set aside each year for depreciation.

By charging repairs against depreciation, uniformity of costs is secured, so that comparisons will mean something from year to year.

All money received whose income is to be used for specified purposes or general expenses should be invested in some safe bonds, or stocks, or real property.

Bonds are seldom purchased at par, and, where bought or donated, a readjustment to make their market value equal the par value is necessary.

The scientific method for caring for this readjustment is called amortization, and necessitates a debit or a credit to the interest account at each periodical adjustment of their book value (usually period is one year) to show the effective rate of interest on the market value of the bonds at the time they were acquired.

It is interesting to show the market value of bonds at the date of the Balance Sheet by means of a foot note.

CHARTS

It is good policy to get up charts showing revenue and expenses by months, beds in use, and other valuable information. Some may contend that such charts are interesting, but cost too much. They do not realize the cost of not getting them up. In seven weeks the bonding companies listed shortages of a half million dollars.

VACATIONS

The Board of Managers of a hospital should require that all office help, the steward, and purchasing agent go on annual vacations. This has the double advantage of checking up employees and departments and instructing clerks in duties other than their own.

GENERAL INFORMATION

The average expenditures for several hospitals in New York State are approximately as follows:

	Percent
Provisions	36.5
Salaries and wages	34.9
Miscellaneous	10.4
Fuel and light	6.8
Medical and surgical support	3.9
Clothing	3.6
Furniture and fixtures	1.5
Ordinary repairs	2.4

SUPERINTENDENT'S ANNUAL REPORT

At the close of the fiscal year it is a good practice to render a written report, elaborating on the statistical and financial statements, commenting on the accomplishments of the year, and drawing particular attention to features of interest to the Board of Managers. This report should be a general discussion of the affairs of the institution, and written in a manner easily comprehended by the average person unfamiliar with medical terms or accounting methods.

STATEMENT OF COST PER PATIENT PER DAY

(See Form 27.)

The cost per patient per day may be obtained from the data given in the Expense Analysis and Census Reports.

The main branches of hospital service are for

Dispensary, Emergency Ward, Private Rooms, and Public Ward Patients. Each branch of this service is charged with the salaries and wages of all persons directly employed in them and all supplies chargeable to them. Operating expenses are apportioned according to the best judgment of the accountant.

The charges from the various departments should be apportioned to the wards, private rooms, dispensary, emergency ward, and social service according to the service rendered in their interests.

The following example will be of assistance in obtaining the percentages chargeable to each branch of the service.

Total cost of ambulance service.....$400.00
Total number of calls.....100
For emergency ward..... 50
Wards 30
Private rooms..... 20
Distribution—Unit cost per call.....$4.00
Emergency ward.....$200.00
Wards 120.00
Private rooms..... 80.00
Total $400.00

It will be seen by this example that, as no calls were made in the interests of the social service or dispensary departments, no charge is made against them.

The total cost of operating each branch of the service, divided by the number of patient days' treatment, visits, or calls, gives the unit cost.

CORPORATION EXPENSES

PER CAPITA COST—DISTRIBUTION OF CORPORATION EXPENSES PER CAPITA PER DIEM

There is a sound reason for charging corporation expense into per capita costs. The corporation expense envelops every activity of the hospital. In large hospitals the Treasurer's salary and his office expenses cover a large number of patient days' treatment. Small institutions may have no Treasurer, the Superintendent caring for all corporation affairs as well as attending to his own duties. In this case the Superintendent's salary and expense cover comparatively few patient days' treatment. Therefore the corporation expense charge will equalize itself in the cost per

THE MODERN HOSPITAL
COST PER PATIENT PER DAY
Year Ended _____ 191_

	TOTAL	WARD PATIENTS		COST PER WARD PATIENT PER DAY IN CENTS	PRIVATE ROOM PATIENTS		COST PER PRIVATE ROOM PATIENT PER DAY IN CENTS	DISPENSARY		EMERGENCY WARD		SOCIAL SERVICE	
CORPORATION EXPENSES		%			%			%		%		%	
ADMINISTRATIVE EXPENSES		%			%			%		%		%	
PROFESSIONAL CARE OF PATIENTS													
SUPT. NURSES, ASS'TS & INST'S		%			%			%		%			
NURSES		ACT			ACT			✓		✓			
ORDERLIES		ACT			ACT			✓		✓			
WARD EMPLOYEES		✓			✓								
EQUIPMENT FOR NURSES		✓			✓			✓		✓		✓	
MEDICAL SUPPLIES		%			%			%		%		%	
DISPENSARY								✓					
EMERGENCY WARD										✓			
SOCIAL SERVICE												✓	
X RAY SERVICE		%			%			%		%			
AMBULANCE		%			%					%			
PATHOLOGICAL LABORATORY		%			%			%					
HOUSEKEEPING		%			%			%		%			
LAUNDRY		%			%			%		%		%	
STEWARDS DEPARTMENT		%			%			%		%		%	
GENERAL HOUSE & PROPERTY		%			%			%		%		%	
TOTAL EXPENSES	✓		✓			✓			✓		✓		✓
TOTAL PATIENT DAYS + VISITS	✓		✓			✓			✓		✓		✓
UNIT COST				✓			✓		✓		✓		✓
SPECIAL NURSES	✓	%	✓	✓	%	✓	✓						
TOTAL UNIT COST	✓		✓	✓		✓	✓						

Form 27. Cost Per Patient Per Day. Actual size, 12 by 11¼ inches. Check mark (✓) signifies figures obtained from original books of entry or directly from the information on this sheet.

capita per diem by reason of the differences in the organizations of small and large institutions. Repairs, taxes, insurance, etc., on property held for investments should be charged as a reduction of income. By following this method all hospitals are on a equal footing in arriving at their per capita per diem cost.

DEPRECIATION AND PER CAPITA COST PER DIEM

Some of the smaller hospitals cost but fifteen cents per cubic foot, while the new fireproof buildings cost as high as fifty cents per cubic foot.

Hospitals having a low cost have a high rate of depreciation, and the hospitals that are built at a high cost have a low rate of depreciation. These rates vary from 6 percent down to 1½ percent where the cost of repairs is charged against depreciation and not as a separate item. From this fact one can see that there is a comparable basis to work from if the cost of depreciation is figured in the statement of cost per capita per diem.

For example, take two one-hundred-bed hospitals, one of which costs $50,000.00 and the other a modern up-to-date group of buildings costing $200,000.00.

1½ percent on $200,000.00 equals $3,000.00
6 percent on 50,000.00 equals 3,000.00

This example shows the logic of charging depreciation to cost per capita per diem and that the results are comparable.

Additions should be capitalized. Betterments should be made through a special fund for that particular stated purpose, and not included in the cost of repairs.

Included in betterments are such items as changes made necessary by poor planning in construction. The expenditures for betterments should not be a part of the cost per capita per diem.

THE GREATER COMMUNITY ASSOCIATION AT CRESTON, IOWA

A Plan and a Prophecy—Six Counties Organized for Social Betterment—Central Hospital Solves the Rural Health Problem—The Church and Medical Profession Unite

By A. E. KEPFORD, Department of Tuberculosis, Board of State Institutions, Des Moines, Iowa

IT is difficult to put down in cold type a great inspiration. It is like trying to photograph a beautiful face in which one desires to reproduce spiritual qualities. The only thing one can do is to get a delineation of the face in which the deeper meanings of character are not revealed. The same difficulty is faced in any attempt to describe adequately the inception and organization of the Greater Community Association at Creston, Iowa, which is at once a plan and a prophecy and which involves the highest principles of democracy.

Dr. F. E. Sampson, a physician and surgeon of Creston, Iowa, may be called the prophet of this great movement; he has led the way to the promotion of the Greater Community Association by which six counties have organized their social, religious, educational, and economic forces. Through his long experience he had witnessed thousands of men and women who were the victims of social ignorance and neglect coming to the hospital for surgical and other care. This appalling waste of physical resources, much of which could have been prevented, made a dramatic appeal to him. Many of the persons who sought relief were the victims of a system of medical and social procedure in which society had made the fundamental mistake of failing to recognize and remove the causes which produce these unfortunate effects. Attempts at hospitalization are often only perfunctory because of the lack of adequate equipment and the scientific training which is necessary if persons seeking relief are to be cared for properly. In other words, many hospitals are but a step removed from ordinary boarding houses and, through insufficient financial or other support, possess but limited opportunities to become efficient. And then, too, there are those petty and irritating misunderstandings in the community, not only civic but medical, which prevent the highest interest of the patient being always taken into consideration. Superstition and

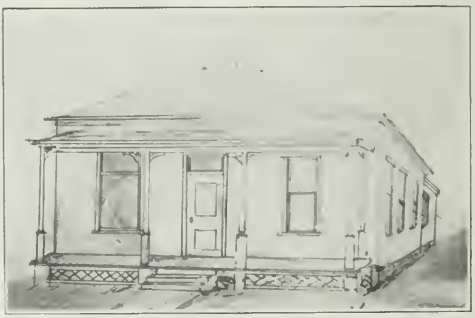

Fig. 1. The rented cottage where Cottage Hospital began October 1, 1894, with a few pieces of white enameled furniture, including five beds and an operating table; working force of one nurse, one cook, one chambermaid; and the notion that these justified calling the place a hospital.

suspicion are the results of ignorance; tragedies arise from the fact that people do not know each other well enough. Generally speaking, people desire to do what is right, but through lack of knowledge, organization, and coordinated effort they can not accomplish the things which are for the best interests of the whole neighborhood. As a rule, people are kind-hearted and deeply interested in community welfare, and there is always an avenue of approach open to those who seek the public good.

Dr. Sampson sensed this. He saw the human possibilities. He has an abiding faith in humanity. He has a very deep reverence for the genius of Christianity. The greater community association of his vision was to be a correlated expression of the social forces of a population of over a hundred thousand souls.

In ancient times the physician was also the priest. Medicine and religion are and always will be coordinate. The healing of the souls of men has a close relation to physical welfare, though this fact has not been recognized by the church. There can be no permanent separation between the spirit and the body in the present order of things. They are coexistent and interdependent. That which makes for physical welfare has always its moral reflex action on the soul. The church is part of the very foundation of the Greater Community Association. It is permanent. Men die, but man lives, and, so long as man exists as man, instinct will group men for spiritual enterprise.

The medical profession is also a fundamental group upon which the Greater Community Association is built. As the nineteenth century was the era of discovery and invention in which equipment was assembled, so the twentieth century is the era of prevention. The achievements of medical science in both civil and military affairs proclaim its right to leadership in public welfare.

Completing the triangular foundation upon which the Greater Community Association rests is the educational group comprising public, private, and parochial schools. Secondary to these primary divisions are the economic and civil groups. The completed scheme, therefore, includes churches, lodges, schools, commercial clubs, women's clubs, city councils, boards of supervisors, medical societies, and any other form of social or economic organization throughout the area.

Prevention is better than cure. In fact, prevention is more easily accomplished than cure. To prevent disease, delinquency, and crime is the social gospel of the twentieth century. What multitudes of human beings may be seen today socially, morally, and economically unfit, loading the ship of state down to the very water line, who

Fig. 2. Cottage Hospital as it appeared on its twenty-fourth anniversary of continuous service. On January 1, 1919, it was transferred to the Greater Community Association, and its name changed to the "Greater Community Hospital." The south wing is to have one more floor, and a solarium will be built upon the roof. The Spaulding Service Building to the rear of the fourth story of the central building does not show in the picture.

through proper social cooperation could have been kept fit and at a high point of civic efficiency! It is not to be wondered at that the Greater Community Association puts its emphasis on child welfare. It makes provision for the adequate physical and mental care of children. It proposes to establish child welfare stations and psychopathic and tuberculosis clinics accessible to every child in the various communities throughout the countryside.

This preventive work will be directed by a social service secretary, who will not only supervise a staff of nurses doing extension work along this line, but who will also help to solve the social problems growing out of such nursing service.

This plan might appear to be the fabric of a beautiful dream but for the fact that a very material foundation has been laid, upon which this entire social structure has been erected. That foundation is a hospital located in the city of Creston, which represents an investment in grounds, buildings, and equipment of over $100,000. It has had a successful existence of twenty-five years. This hospital has been donated as a free gift to the Greater Community Association and is now a hospital belonging to a population of over a hundred thousand people. It is the people's hospital and stands without incumbrance, a monument to the faith of those who devised and promoted the Greater Community Association.

The hospital belongs to and is controlled by the people. It does not exist for any physician or group of physicians. The motto of the Greater Community Association is "Service." The hospital affords no special privileges to any physician. It does, however, offer multitudes of opportunities to every visioned doctor. The hospital stands as a challenge to the genius, ability, and energy of every medical man in the area. Its hospitable doors are wide open to every physician

who can prove his worthiness to enter. The Greater Community Association says: "Here is the equipment. Here is an x-ray equipment and an expert roentgenologist. Here are the laboratories. Here is a nursing service, second to none. Here is your opportunity. But you must prove worthy to serve your own community in your own neighborhood first, and thus demonstrate whether the threshold of the hospital to the operating room and the rule that from the time a patient enters the hospital a complete record of his case is kept. There can be no dark and sinister compacts here between physician and patient.

The government of the Greater Community Association is vested in a board of governors. (See Fig. 3.) Each participating group, however, has

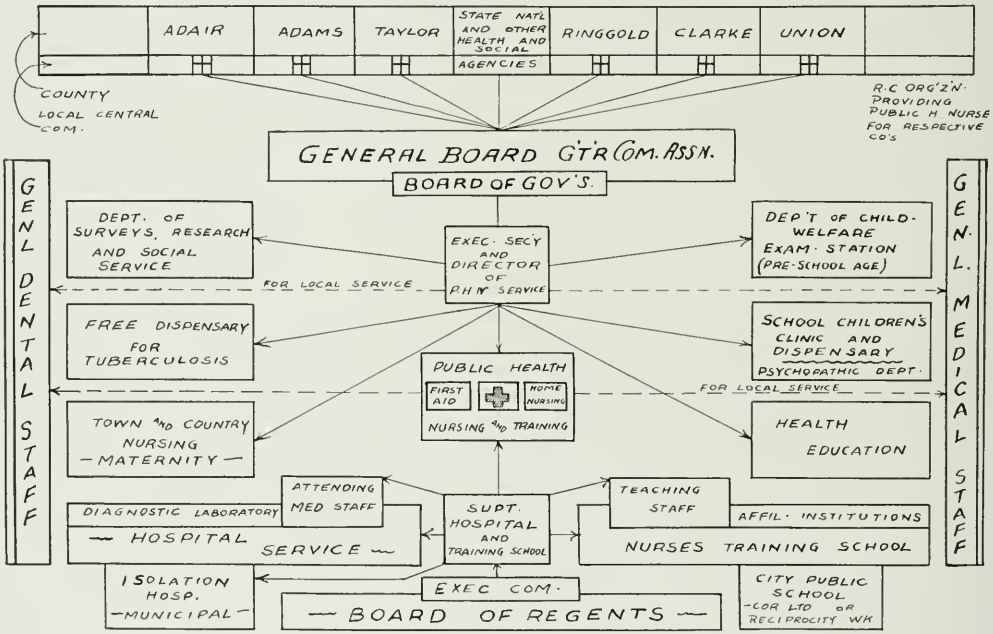

Fig. 3. Diagram showing organization of the government of the Greater Community Association.

you have the vision of service. As a physician in your own neighborhood you must be identified with the great program of socialized medicine, and, only when preventive measures have failed and it is necessary to bring your patient to the hospital, will you find a welcome here."

The physicians of this community, among the most progressive in the country, with few exceptions have studied this plan and are heartily in accord with the general program. They are enthusiastic. Indeed, practically all of the county medical societies in the jurisdiction have taken memberships in the Greater Community Association, and the doctors themselves are discussing its reaches of influence with the people of the countryside and devising ways and means for success. Moreover, many physicians have themselves taken memberships in the association. Among the principles of the hospital management are the precept that it shall be a long way from a committee of three, known as the social service committee. This committee represents the organization in what may be termed a general assembly. Necessarily the general assembly is a large body. This group selects the board of governors. Their jurisdiction is limited to the social side of the service, including the departments of child welfare, dispensaries, public health nursing, etc. The hospital and training school are in the custody and under the direction of the board of regents. This board is the supreme authority, and is elected by members of the association, individual and institutional membership voting. The hospital and training school is under the authority of a superintendent, who is responsible to the board of regents. (See lower line of diagram in Fig. 3.) The department of welfare, social service, etc., is under the authority of the executive secretary (a public health nurse), who is responsible to the board of governors. (The

board of governors is in effect the executive committee of the general assembly.)

The finances of the two departments of service, hospital (or scientific) department and the welfare (social) department, are entirely separate. All charity patients must come through the social service department, and this department is held accountable for the actual cost of hospital care. The hospital contributes the gratuitous service of its medical staff and the advantages of its organized diagnostic and nursing service. This puts it up to the welfare and "uplift" agencies of each community to look after their own people or see to it that their county assumes responsibility for the hospital expense.

active interest in the association continues. Provision is made, however, to cut off any dead members. This money goes into an endowment fund, the purpose of which is to maintain a social service secretary and such office force as may be necessary to carry forward the work of the association.

Recently one of the board of governors brought in six memberships, and, in a number of towns in the various counties throughout the jurisdiction, every church has taken membership.

Each county is organized from within to coordinate its various forces for the promotion of community welfare and especially for the conservation of human life values. (See Fig. 4.) The

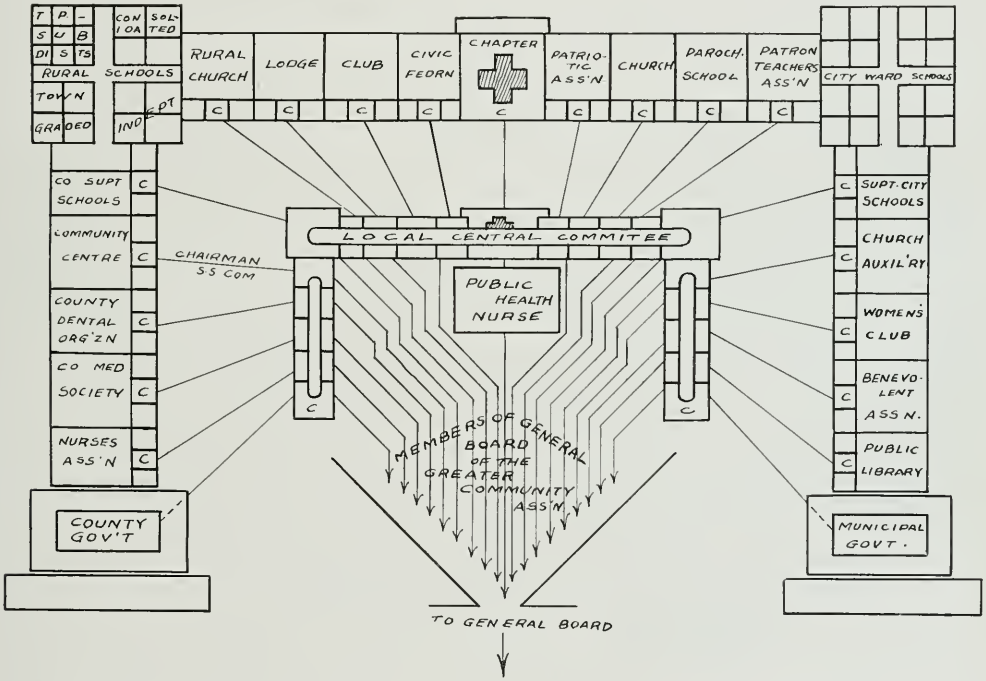

Fig. 4. Diagram showing local central committees of the Greater Community Association. These committees coordinate the local forces—social, fraternal, religious, educational, commercial, agricultural, industrial, professional, and political—for local service. Each trio of squares equals the social service committee of the organization; C stands for the chairman of the committee who represents his organization on the local committee and on the general board of the Greater Community Association.

In either event, the medical staff contributes gratuitous service.

The assembly meets from time to time in discussion of the public welfare and health movements which have to do with general community betterment.

Membership in the association is $25, payable but once. Each church, club, school, lodge, or other organization participating pays $25 and thereafter is perpetually a member, so long as

local central committee includes educational, medical, and local government administrative heads. The public health nursing activities are directed by the public health nurse (provided by the county Red Cross Chapter). The local central committees of the six counties meet quarterly in the assembly room on the fourth floor of the new Central Hospital building. The aggregated central committees constitute the general assembly of general board of the association. Each par-

ticipating organization has its own committee of three members (the social service committee). The chairman of this committee represents his church, lodge, club, etc., on the local central committee, and is also a member of the general assembly where he is authorized to cast the vote for his organization in the election of the regents and the board of governors.

The American Red Cross is participating, and chapters and branches throughout the district

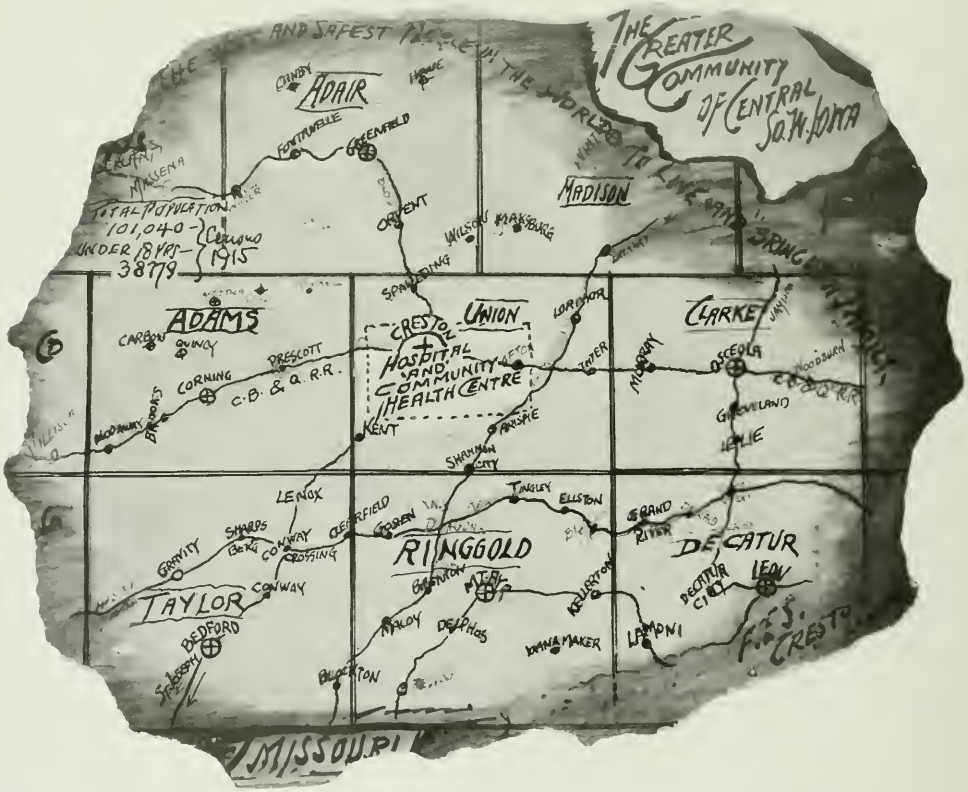

Fig. 5. Map of the six counties served by the Greater Community Association.

have become a part of the association. A scheme has been worked out by county superintendents of some of the counties, at least, for Junior Red Cross membership in each township. There are nine schools in the average rural township. Nine schools combined will hold one twenty-five-dollar membership. Thus the juniors become a part of this great achievement.

The hospital does not receive any of its funds for operation expense from the Greater Community Association. A board of regents direct and manage it. The question here is, How shall the hospital be supported? The answer has been worked out in this way. No patient is received in this hospital free; someone must pay for room and board. An illustration will serve to make this point clear. The social service committee of a church at Bedford, forty miles distant from Creston, applies at the hospital for the admission of a woman who needs a surgical operation and is unable to pay. The secretary will then ask this question: "Has your church sufficient interest in her to pay her room and board?" The answer being in the affirmative, the woman is brought by her physician; the operation is performed either by him or by a surgeon of the hospital staff. The room and board at the hospital are paid by the church, but neither the attending physician nor the member of the hospital staff can make any charge whatever for his services. The maintenance of the hospital is thus assured.

One of the charter principles of the confederation is that no physician, either in private practice or as a member of the hospital staff, can

charge a fee for any service rendered by him to any patient whose room and board have been paid in whole or in part by any person or group or from public funds. That is, free professional service for charity cases is the contribution made by the physicians practicing in the hospital of the Greater Community Association. On the other hand, when a physician brings a patient to the hospital who is able to pay, the patient pays the regular hospital rate and whatever fee may have been agreed upon between him and his physician. Meanwhile the Greater Community Association has provided a hospital equipment and service as fine as can be had in any city of a hundred thousand.

Here, then, we approach what may be considered a solution to the problems of the rural hospital. We have a hospital which makes no attempt to pattern after the great city institutions, but is organized to meet the needs of a rural neighborhood. The Greater Community Association has been taught to regard the hospital as a repair shop, necessary only where preventive medicine has failed. The standards of this hospital are adapted, therefore, to the demands of a rural population, and the ethics governing the whole plan are expressed in the law: "Thou shalt love thy neighbor as thyself." This hospital has in itself three general functions: social service, which includes preventive medicine, child welfare, and clinics; nurses' training school; and the maintenance of an adequately equipped hospital, which challenges the finest scientific skill.

A great many plans have been suggested for a memorial to the American soldiers who have been killed in action or died of disease during the great war, but the Greater Community Association has established a memorial fund to be used for child welfare. This foundation is to perpetuate the name of a soldier who made the supreme sacrifice whose name otherwise would perish from the earth. The memorial is in the form of a tablet on the wall of the reception corridor of the hospital with the name of the man in whose memory the money is given inscribed upon it. Many liberal citizens are contributing Liberty bonds for this purpose. The idea is a beautiful one. The hope is that eventually an endowment will have been created large enough to support by its income a trained nurse whose entire time will be devoted to the care of the babies and little children of the hospital area.

Recently another feature has been added in the shape of a $20,000 block of capital stock in the one daily newspaper published in the "greater community," which has been given into the care and keeping of the Greater Community Association's board of regents; the income derived from this stock is to be contributed to the maintenance of the child welfare service, and with this is included assurance of adequate publicity for the work of the Greater Community Association. The story of how the hospital came to possess 40 per cent of the capital stock of this *Greater Community Newspaper* will, of itself, provide material for an interesting story and one that should carry encouragement to any who may be striving to promote efficient hospital service against the current of perverse political influence that not infrequently afflicts rural as well as urban communities.

I can not close this article without making the suggestion that this experiment is a tremendous challenge to the church. The fundamental principles of this organization are those laid down twenty centuries ago. It remained for a physician to discover the plan and to become the prophet of a new era. The church is beckoned forward. Public health and public morals are intimately related. Meanwhile democracy is justified.

INVENTED BY WOMEN

Not Content With Simply Nursing, Women in War Work Invent Appliances to Make Nursing Easier and More Effectual

Men have no corner on the inventive genius that is bringing new discoveries out of the experience of the war, according to an account in *The Toronto World*. A much improved splint has been invented by a woman who believed that something better than the heavy wood or iron splint was possible and practical.

Papier-mâché splints had been tried before because they are light, but they were considered unfit for surgical use because they can not be washed and are therefore unsterilizable. This woman, who is a sculptor by profession, has perfected a waterproofing process which renders the papier-mâché appliances suitable for every requirement of modern surgery.

These splints are built up around casts made of the injured limb or of the good limb and reversed. They are made sterilizable, non-inflammable, transparent to x-rays, anatomically accurate in fit, and easily taken to pieces. The work is being done by women sculptors.

A bed for spinal cases in which the patient's injuries may be dressed without the necessity of moving him is another product of a woman's mind. The bed consists of a secondary mattress made of strips of canvas, each of which unfastens separately. The patient lies on this mattress which is superimposed on the regular mattress of the cot bed. By means of screws, patient and canvas mattress can be raised two or three feet above the bed, the strips of canvas removed from beneath the affected part, and the injury dressed through the aperture.

Things are saturated with the moral law. There is no escape from it. Violets and grass preach it; rain and snow, wind and tides, every change, every cause in nature, is nothing but a disguised missionary.—Emerson.

LITTLE JOURNEYS TO PLACES "OVER THERE"

To Plessis Piquet, L' Hopital Croix Rouge Americaine, Sanatorium Trudeau—A Beautiful Chateau and Magnificent Estate Used by the American Red Cross with the Permission of the French Government

By MARGARET J. ROBINSON, R.N., With the American Red Cross, Paris

THE first record of Plessis Piquet goes back to the year 1112, when permission was obtained to build the chapel. From that time until now, as the estate grew and as one piece of land and building after another was added, it was handed about from owner to owner by sale or by the gift of the church or the king. The name "Plessis" (from the late Latin *plexitium*, land enclosed with palisades) was given to it because one of its first landlords was careful to surround the whole property with strong walls and fences, and today a tombstone under the chapel bears a hardly legible inscription giving 1317 as the date of the death of Guiart du Plessis. A later seigneur, Jean de la Haye, called Piquet, gave his name to the estate, which is therefore distinguished as "Plessis Piquet" from the many other châteaux and villages bearing the name "Plessis."

Some of its terra cotta pavements were laid down in 1662. Colbert, one of the greatest prime ministers in the history of France, later acquired Plessis and the little villages around it, and the king's architect, Perrault, who designed the great parks at Versailles, planned and laid out for Colbert parts of the grounds and gardens at Plessis which still exist today.

In 1699, Plessis was bought by D'Artagnan—the D'Artagnan whom we all love in "The Three Musketeers" of Dumas, and who afterward became a marshal of France. In 1870 the terrace of the estate was a fortification in the Franco-Prussian war. Today Plessis Piquet is in a war again, but this time not as a combatant. The French government has given the use of the château and estate to the American Red Cross for a hospital for tuberculosis cases, and for a great preventive and educational institution to save the children for France. A large proportion of the children treated are from the invaded districts.

The chief nurse of our bureau and myself started out one morning for Plessis Piquet. Our American boy chauffeur in khaki didn't seem to know just how to get there, but between our feeble French and the kindness of the villagers along the narrow, winding, walled-in roads, we managed to find it. It didn't seem right to waste petrol making wrong turns here and there, but our consciences were not aroused as much as they should have been, because we were so engrossed in watching the quaint old French villages through which we passed, the gardens all decked out in brilliant autumn colors, the clear blue sky above, and a

Fig. 1. The hospital gateway. Many enter here ill and without hope and go out into the world again filled with strength and courage

Fig. 2. La Grande Allee. This arched roadway leads to the children's barracks.

friendly avion and a dirigible floating over our heads.

After following all the turns of the road that anyone told us to take and winding down narrow cobbled streets between walls, we came into a sort of cul-de-sac. On one side was a little wine-shop with low doorways and a stable with a diminutive, inquisitive white donkey in front of it. Just at our right, above a crumbling old wall and a stone seat, we saw the sign, "Hôpital Croix Rouge Amèricaine," and we knew we had arrived. Our vocabulary for the rest of the day consisted largely of, "Isn't that beautiful?" and "What a wonderful work you are doing here!"

Entering the gateway, we asked the way to the *médecin-chef* from two young women we met there. One proved to be a Russian doctor, the daughter of a famous revolutionist, and the other an Irish nurse, married to a Russian officer in the French army as the result of a war romance. People are certainly international and cosmopolitan over here. In French hospitals all nationalities, except the Teutonic ones, work in harmony.

We were told that the *médecin-chef* was on the terrace, and the doctor and the Irish nurse offered to show us the way. On the left we saw the chapel, its walls yellow and crumbling, and on the right, the worn stone steps leading to the château. The château itself is a beautiful building, parts of which have been restored from the earlier buildings, with the more recent wings added during the last century. We walked through gardens and wooded paths thick with fallen leaves until we came to La Grande Allée.

Fig. 3. Playtime in the barracks for those who must stay in bed in the afternoons.

Fig. 4. Mass under the trees in the open air. The altar is on one of the old doorways of the chateau.

La Grande Allée, the day I saw it, looked like the road to Paradise. The trees were covered with bright yellows and reds and browns, meeting overhead. Patches of gold sunlight flickered through, and, at the end of the road, the sky over the valley made a clearly outlined gateway of blue ahead.

D'Artagnan built the terrace over the Sceaux and Fontenoy valleys, and it formed the barricades in the defense of 1870. Along the terrace now are rows of *barraquements* for the children, clean and light and airy, with orderly lines of small cots, well covered with thick warm blankets.

As we came out on the terrace, we saw a procession of aides, each with one of the small folks by the hand and more hanging on to her skirts and following after her. We, too, followed into the children's dining room barrack. It would have done your very soul good to see those youngsters eat, especially the two small boys who licked their plates after they had finished the food on them. Most of the children had been at Plessis Piquet long enough to get round and plump and were to be sent home soon to make room for others who needed the same building process that the first ones had completed.

Every three weeks, thirty of those in the best condition are discharged. Thirty new ones are taken into the isolation barrack, thoroughly examined, released in time to the preventorium on the terrace or to the hospital, and put under proper treatment. Most of the children are tuberculous, many just undernourished and of low resistance. The work at Plessis Piquet is the saving of women and children for France—one of the most beautiful and humane pieces of work that the Red Cross has done in the war. It started before we could get our men into the fighting lines, and brought the good will of America to France through the dollars that went into the Red Cross funds at home. Perhaps nothing else that we could have done would have brought us into closer touch with the French people, and there is no question about their intense appreciation of this work.

The barracks along the terrace are well planned and constructed, and sanitary. Each has a bathroom and running water, and all are thoroughly

Fig. 5. A French aide bringing lunch to the children out of doors.

Fig. 6. The terrace. A fortification in the first Franco-Prussian war; now a home and a playground for the victims of the second one.

open to the air and sunlight, heated, and well protected from the weather. On the walls of the rooms are rows of numbered hooks for the hooded woolen capes, and metal numbers for each child's individual equipment of basin, towel, and toothbrush. One has a wholesome respect for French housekeeping after seeing the barracks at Plessis Piquet. The women and maids who have charge of the cooking and cleaning and the linens are so immaculate, systematic and orderly that they must be an important factor in the machinery of the Sanatorium Trudeau.

There is a school and a playroom barrack for the children, provided with tables, plenty of small rush-bottomed chairs, blackboards, alphabetical charts, and boxes along the wall for the playthings. The children who are able come to school in the morning. The teacher in charge says that they are for the most part pliable and easy to discipline—much more so than the American children of the same class. Outdoor games are held at regular intervals, and a French officer gives military drills for the older boys three times a week.

As we came out again into the open we met groups of the children coming in for their routine afternoon rest in bed. First came Mitri and Odette, clinging to their favorite aide—Mitri and Odette, whose homes had been destroyed and whose fathers had died in battle for *la patrie*. Upon request, each made a solemn bobbing courtesy and said, "*Bonjour, Madame*," and Odette, thinking it proper and respectful to do so under the circumstances, came forward and lifted up her face to be kissed.

The barrack where the women personnel live and eat was comfortable and attractive. It was divided by partitions and each section curtained off with brown burlap. Several of the small rooms were brightened by cretonne window curtains, pictures and photographs from home, and garlands of autumn leaves and freshly picked holly from the trees nearby. A good fire in the dining-room stove added a note of cheer as we all sat down to a dinner of meat, potatoes, lentils, stewed fruit, and coffee. Our company consisted of the graduate nurse on duty in the barracks, the teacher, French and American aides, social work-

Fig. 7. The dinner hour. Only the plates are left when it is over.

ers, the Russian doctor, the Irish nurse, and one American soldier.

After dinner we walked back through La Grande Allée and the gardens to Setelange, another building of the château, which is used for the children's hospital. The American woman doctor in khaki uniform who is in charge is most devoted to her sick babies. A British nurse looks after the nursing, assisted by an American nurse, some French aides, and floor maids.

At Setelange a lot of pitiful looking young children and babies and a few new babies were receiving both scientific and loving care; and in one room on the top floor ten pink-aproned babies were seated on a big army blanket on the floor, very solemnly and silently trying to play.

Most of the floors at Setelange are laid with very old red tiles, and some on the lower floors are of a dark, highly polished wood. I asked about the polish and was told that the maids still applied it after the fashion of a century ago. They tie brushes on their feet, walk around, and rub in the polish until the floors shine. Some of the walls were twenty to twenty-five inches thick, and the doorways hardly high enough to enter without stooping.

After Setelange we passed from the entrance court, over the cobblestones and through a gate in the wall next to the little wine-shop, to the receiving unit. This unit is in a tumble-down building now in the process of repair. On the top floor is the office of the American dentist who looks after the teeth of the five hundred patients and personnel at Plessis Piquet, and he surely finds plenty to do. Thirty children are housed here until they are released to other buildings.

Across the gardens is a small building used for the emergency surgery and dispensary service. It also houses some of the nurses and aides and the old curé of the village. On the first floor is an immaculate operating room, freshly enameled white, made from the reception room of the house.

There are two wards on the second floor, one for men and one for women, holding about twenty beds in all. We were told that Plessis Piquet was the only place where the four villages of Sceaux, Fontenoy-aux-Roses, Clamart, and Chantillon could procure medical or surgical aid. The surgical nurse in the building was a Belgian girl who had received her training under the martyred Edith Cavell.

We went back to the château for afternoon tea, and, as we opened the gate in the wall to come through, the little white donkey from the stable across the way stood before us, begging to come in. After tea, we went over the château, which is the women's hospital. It has several well-kept, roomy wards for the women, and in the garden on the terrace many of them reclined in chairs, wrapped in blankets, reading and sewing, and

Fig. 8. One of the many wonderful views which abound in the region occupied by Sanatorium Trudeau.

Fig. 9. In a few weeks these convalescents, strengthened by fresh air and good food, will again be their former selves.

doing the eyelet embroidery for which the French women are famous.

Before we left I met Dr. James L. Gamble, the director, in his office at the head of the chateau steps. The Sanatorium Trudeau is under the direction of the Bureau of Tuberculosis of the American Red Cross in France. Dr. Gamble and his associates of the Bureau have had much to do with the successful conversion of Plessis Piquet into the Sanatorium Trudeau, and have treated this beautiful old chateau and estate with all reverence in the necessary changes they have made. They have accomplished a great work for the American Red Cross—a work that has reached the heart of France. Daily they are saving women and children for the new France that will arise triumphant from the chaos after the war is won.

FROM OUR FIELD EDITORS' NOTEBOOKS

A Hospital Situated in Historic Surroundings—Home for Incurables Characterized by Atmosphere of Cheer—Institution for Wounded "Dough-boys" Club-house Rather Than Hospital

Carney Hospital, Boston

The Carney Hospital of Boston stands on one of the terraces of Dorchester Heights, a site pregnant with historic interest. It was up these heights that Washington's men stole on that memorable night of March 4, 1776, during the siege of Boston, much to the surprise and discomfiture of General Howe. The occupation of this strategic position eventually forced the evacuation of Boston by the British. Adjoining the hospital grounds is Thomas Park, crowning the heights. Here, too, stands the picturesque Dorchester Monument.

Sister Raphael escorted me to the roof of the central portion of the hospital building, the view from which she said was the finest thing they had. All of Boston and the harbor beyond stretched beneath us. To the east lay Fort Independence and, sweeping out beyond, the Boston Harbor, "protected by its skirting of beautiful islands." To the south we could see many of the seacoast towns, and to the north, Bunker Hill Monument and the Old North Church, recalling the "Midnight Ride of Paul Revere."

The Carney Hospital was established on June 9, 1863, and will therefore shortly complete fifty-six years of service to the sick. It is named after Mr. Andrew Carney, who originally purchased the Howe residence with its surrounding lawns and orchards and presented them to the Sisters of Charity of St. Vincent de Paul. The main part of the present building, the first sections of which were completed in 1868, is a five-story brick and stone structure with a sixth story at the central portion where the operating suite is located.

This operating suite contains some interesting features. The anesthetizing room is finished in a maroon color and, with its curtains, pictures, writing desk, and flowers, gives the impression of being an ordinary room such as one might find in any home. The thought, of course, is to keep the patient, while still conscious, from any environment tending to arouse fear and apprehension.

Two of the four operating rooms, moreover, are decorated in gray, except for a four-foot marble wainscoting. The operating tables and other equipment in these rooms are gray, as are also the cheviot gowns worn by the surgeons and nurses. Gray has proved extremely satisfactory to the surgeons, in that it concentrates the light much more thoroughly on a patient than a room finished in white.

In re-laying the floor of the hallway from which the operating rooms radiate, it was hoped that terrazzo could be used, but the cross beam would not support the weight; consequently a thin layer of cement was laid instead. Carried up the wall about four feet, this serves as an excellent protection against injury by the carriages, and eliminates the all-too-often unsightly broken wall plaster, especially at the corners.

A spacious solarium, 30 by 40 feet, has recently been constructed on one side of the hospital wing, supplying a

long-felt need. The solarium on the second floor is furnished in beautiful brown oak, that on the third floor, in golden oak, and the one on the fourth floor, in dark green oak. The roof of the solarium is used as a roof garden.

I found two interesting features in the nurses' dining room. In a space formerly occupied by a window, Sister Raphael had installed a steam closet, where the food is kept warm for those nurses who are detained on duty and are unable to partake of their meals at the customary hours.

Another interesting feature, which may be more common than I suspect (it is in use in Johns Hopkins Hospital, Baltimore), is a napkin-rack attached to the wall of the dining room just to the right of the entrance door. This rack is divided into small pigeon-holes large enough to hold each nurse's napkin neatly rolled and encircled in a napkin ring. As each nurse enters, she takes her napkin from this rack and returns it to the rack as she leaves the dining room. This arrangement undoubtedly makes for orderliness and saves time in the setting of the tables.

It has been the policy of the hospital, ever since 1903, to maintain continuous service in its principal departments, such as medicine, surgery, orthopedics, and gynecology. This policy greatly lightens the task of the sister in charge, and, of course, works to the advantage of the patients.

The hospital has a bed capacity of 215 beds. During 1918 it gave care and treatment to 264 pay patients during a total of 4,964 hospital days; to 2,514 part-pay patients during 31,709 hospital days; and to 879 free patients during 3,318 hospital days.

An excellent training school is maintained, with affiliation with the Brady Memorial Hospital of Albany,

Fig. 1. Carney Hospital, Boston, situated on historic Dorchester Heights.

N. Y., for maternity work. Last year there were 109 nurses in training.

Sister Raphael hopes to get enough money soon to put up a new building for much-needed laboratory and x-ray facilities, as well as for living quarters for the interns of the hospital.

Holy Ghost Hospital for Incurables, Cambridge, Mass.

A short five minutes' walk up Cambridge street from Harvard University brings one to the Holy Ghost Hospital for Incurables. This hospital is one of a group of hospitals and orphanages directed by the Order of the Grey Nuns, established in Montreal in 1747 by Madame d'Youville, whose first work was in the General Hospital in Montreal. Some idea of the extent of the work of the Grey Nuns may be gained when it is realized that in Montreal alone they direct twenty-three institutions, including hospitals, kindergartens, orphanages, homes, and industrial schools. From Montreal their activities have radiated throughout Canada. In the western provinces of Canada twenty-eight institutions are under their guidance. They also maintain a number of hospitals and orphanages in the United States.

The Holy Ghost Hospital for Incurables was established December, 1893, when the Reverend Father Scully, pastor

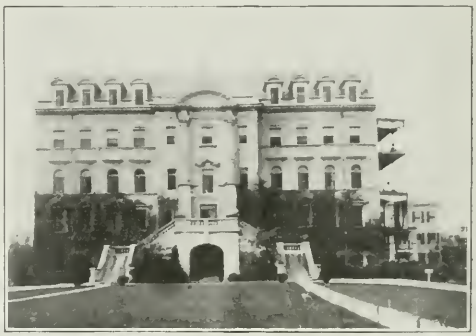

Fig. 2. Holy Ghost Hospital for Incurables, Cambridge, Mass.

of the Church of St. Mary's of the Annunciation, gave the Grey Nuns the present site of the hospital, comprising some six acres of land, and $25,000. With this money a small cottage hospital was built in 1894, which is now used as the residence of the sisters and attendants.

The present building was dedicated November 17, 1898. The original plans call for a wing at each end, which, when added, will give the building a richer and more rounded-out appearance architecturally.

The present building is T-shaped, a section running back from the center of the long axis of the building. There are accommodations for 130 patients in wards of varying size. The west end of the building is devoted to galleries which open to the chapel and make it possible for many of the patients to be wheeled in for the religious services. The roof of the section running back from the center of the building is used as a roof garden, part of which is covered by a broad canopy to protect the patients from the sun. To reach this roof garden, one steps through a bright, attractive day-room used by ambulatory patients.

A not uncommon complaint among hospitals is that their serving rooms are too small, but one of the praiseworthy features of this hospital is the adequate amount of space allotted to the serving rooms.

As its name indicates, the Holy Ghost Hospital is a hospital for incurables. Patients suffering from cancer are the most numerous. Tuberculosis and paralysis also form a large percentage of the cases, while heart disease, hip, joint and bone diseases, tumors and rheumatism are to be found among the rest.

There are seventeen or eighteen sisters in charge of various departments of the hospital; nine of these, who come directly in contact with the sick, are trained nurses. Under their direction, about thirty-nine attendants devote themselves to the care of the patients.

As I walked through the various rooms and wards, I

could not help but be impressed by the spirit of hope and cheerfulness that prevails throughout the hospital. One of the male wards is especially entertained and stimulated by the merry jingles, touching mainly on current events, of an old gentleman of 65, who is suffering from paralysis of his left side, and who jestingly informed me that he still had one hand and a little gray matter.

U. S. General Hospital No. 32, Chicago

A hospital, and yet not a hospital—that's No. 32, situated in the heart of Chicago's great south side. The five hundred seven soldiers who are being cared for are, all of them, wounded or convalescing—that's why it's a hospital; but every one of them have been through the Big Adventure "over there," and, although they are patients, they are, first of all, lively, red-blooded American boys—that's why their varied activities take away the hospital impression. To the casual visitor it seems more like a club-house than a hospital. The atmosphere just buzzes with life and activity, and the boys, happy in the various types of occupation supplied them, take their wounds and disabilities in the lightest possible manner.

On the particular day I visited the institution, the sunny afternoon and the call of spring had left most of the beds vacant for an hour or two, but the many who were unable to be out-of-doors employed their time to the best advantage and seemed unusually happy and content. One lad was busy on a miniature Red Cross ambulance; another, propped up in bed, amused himself with a game of solitaire; a third was receiving instruction in mathematics from the occupational aide who sat at his bedside; while a fourth laboriously pounded out the elementary "a-s-d-f-g" finger exercises on a typewriter. Flowers and sunshine filled the ward. No wonder its occupants were happy! Even the victrola in the corner (donated through the

Photo by courtesy of the Chicago Daily News
Fig. 3. One of the wounded soldiers at U. S. General Hospital No. 32, who is taking the electrical engineering course at Wendell Phillips High School.

courtesy of the Red Cross) played the popular "Smiles," which indeed seemed to express quite well the spirit of the institution. The boys love music—so much, in fact, that one of them, a hero of Argonne Forest, made an improvised ukulele from a cigar box and a small two-by-four discarded in the quartermaster's lumber pile, with the aid of a jack knife and a saw. Its infectious melodies spread such lyric joy throughout the ward that several of his comrades are now knee-deep in the art of manufacturing ukuleles.

The boys of the hospital boast a newspaper called *The Fair Wear and Tear*, and are also represented by the *Fort Sheridan Recall*, which is published weekly.

Everywhere the splendid work of the occupational department is evidenced in the spirit of the patients. With a corps of twenty-one happy occupational aides to guide and inspire them, the men have taken a keen interest in the activities, which are not only to assist them in gaining the use of injured members, but to prepare them for places in the industrial world. A late report shows that, of a total of 427 patients who are physically able to take the work, 204 are engaged in some kind of occupational effort. Classes are held in elementary and advanced English, business English, economics, natural science, mechanical drawing, French, Spanish, penmanship, commercial arithmetic, typewriting, shorthand, business methods, photoplay, and elementary science, as well as in carving, commercial art, and photography. When possible, the men go to the class rooms on the third floor, but, if they are unable to leave their beds, the aides come to them, bringing the necessary books, tools and other materials. The students of photography, all of them overseas wounded men, have begun taking a series of views of the hospital and its activities, which are to be printed on a set of twelve post cards and given to each patient to send home to his folks.

Fig. 4. Out-Patient Department of Carney Hospital.

When the hospital was opened on January 25, 1919, there was little equipment for shop or vocational work. The spirit of the institution, which is to surmount all obstacles without hesitation, would not permit of waiting for its arrival, and accordingly arrangements were made with the Board of Education to use the facilities at Wendell Phillips High School, a few blocks away. As soon as the boys are able, therefore, they are taken to the high school in vehicles supplied by the Army Motor Transport Corps, where they receive the benefit of the completely-equipped vocational education shops, as well as of the commercial and academic classes. About seventy-five patients from the hospital are enrolled in the classes each week. Some take only morning classes, others only the afternoon ones, but many remain for the entire day from 9:30 to 3:30.

Perhaps the most vivid impression one carries away from this hospital is the care-free, cheerful nature and the lively do-or-die spirit of the patients. Everyone within the four walls seems content. Undoubtedly much of the credit for the harmony and happiness within the institution is due to Lieut.-Col. J. E. Darby, the commanding officer, whom one of the boys enthusiastically described as a "regular fellow" and "the finest superior who ever wore a uniform."

The MODERN HOSPITAL

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Who Started Hospital Social Service?—The Time, 1636—The Place, Paris—The Man, Vincent de Paul

Credit for inaugurating hospital social service in organized form is claimed on behalf of at least two institutions in Boston, an equal number in New York, and one in Baltimore. All of the institutions in question deserve credit for emphasizing the social backgrounds of disease, but the honor of organizing hospital social service belongs to France.

In 1900 the Administration Générale de l'Assistance Publique published an account and history of the work of the department, under the title "L'Assistance Publique en 1900." The following quotation is taken from page 166 of that volume:

Oeuvre de la Visite dans les Hôpitaux

"De toutes les œuvres dont nous parlons ici, celle de la *Visite dans les hôpitaux* est de beaucoup la plus ancienne et compte un grand nombre de membres.

"Réparties en trois groupes, les dames sociétaires vont, les unes, sous le nom de *visitantes*, apporter au malade l'aide matérielle et morale dont il a besoin; d'autres, sous le nom *d'assistantes*, informées par les premières de la situation des malades visités, portent à domicile des secours, soit à ces malades sortis convalescents de l'hôpital, soit à leur famille, s'ils sont encore en traitement; d'autres, enfin, appelées *collectrices*, sont chargées de procurer à l'œuvre des ressources.

"Organisée en 1636 par Vincent Depaul, interrompue par la Revolution, puis reconstituée d'abord au profit de l'Hôtel-Dieu, et, successivement, étendue à tous les hôpitaux, cette œuvre est, on le voit, une vieille collaboratrice de l'Administration hospitalière parisienne.

"*L'Oeuvre de la Visite des malades protestantes dans les hôpitaux*, œuvre semblable a la précédente, quoique moins ancienne, occupe une place importante dans l'ensemble des œuvres similaires; fondée en 1860, par deux dames protestantes, elle fut définitivement constitutée en 1867.

"D'après le règlement de cette œuvre, les malades sont visités, deux fois par semaine, par les dames sociétaires dont la mission consiste à leur apporter des consolations et des secours en nature, à écrire pour eux à leur famille, à faire les démarches qui leur sont utiles. . . .

"Ces deux œuvres entretiennent avec l'Assistance publique des relations qu'un commun désir du bien contribue à rendre profitables aux intérêts des malheureux.

"Sans doute leur origine confessionelle a pu, jadis, influer sur les tendances et les procédés de l'une et l'autre de ces œuvres, dont certains membres ont encouru, dans le passé, le reproche de prosélytisme.

"Mises en garde contre les excès d'un tel zèle, ces œuvres ont toujours affirmé depuis cette époque, leur volonté de borner leur action à la protection et à l'assistance de ceux qu'elles visitent, en s'interdisant toute propagande et en exigeant de luers visiteurs le discrétion la plus absolue dans l'exercice de leur mission. L'Administration veille d'ailleurs à ce que les instructions relatives à la liberté de conscience soient partout obéies."

From 1636 until the French Revolution the hospitals of Paris had their full-fledged social service auxiliaries, including solicitors and contributors of funds, ward visitors, and a staff of home visitors. The first group apparently succeeded in obtaining the required financial support; the second, in the language of the report, "brought to the sick the material and moral aid of which they had need," while the third group, informed by the second concerning the requirements in each case, made domiciliary visits and advised, directed, and assisted convalescents on their departure from the hospital.

The whole system was disarranged at the time of the French Revolution. Shortly after the Revolution it was reestablished, first in the Hôtel-Dieu, then in other hospitals, until finally each hospital once more had its social service organization. An intimate history of the work which is so briefly sketched in the report of the Assistance Publique would doubtless be instructive to American social service workers, and it is to be hoped that such a history will some day be made accessible to those who are interested.

The work begun by St. Vincent de Paul (one hardly recognizes the name "Vincent Depaul") was undoubtedly prompted by religious as well as humanitarian motives, and its chief beneficiaries were Roman Catholics; in 1867, however, a parallel organization entered the field under Protestant auspices, planned for the benefit of Protestants. Charges of proselytism were at one time made against both groups, but the matter was eventually adjusted to the satisfaction of the pub-

lic officials and, the religious zeal of the extremists having been curbed by the objections raised, the work is now said to be carried on with due regard to the liberty of conscience which the laws of the Republic guarantee to all citizens of France.

Modern America is not so very modern after all. *Hospital social service did not have its origin either in New York, Boston, or Baltimore, but was rediscovered in America after nearly three hundred years of flourishing existence in France.*

All honor to the rediscoverers! They have done and are continuing to do a good job. And glory everlasting to St. Vincent de Paul, founder of the Lazarists, of the order of "Filles de la Charité" and of the Foundling Hospital at Paris, and the true patron saint of all hospital social service.

S. S. GOLDWATER, M.D.

Sane Words on the Nursing Problem

Some of the sanest and soundest commonsense that has come to our attention on this subject is embodied in a letter published in another column from Miss Nancy E. Cadmus, superintendent of the Manhattan Maternity and Dispensary. Referring to our editorial last month on "Nursing in Families of Limited Means," Miss Cadmus says, "I cannot rid myself of the belief that much of the difficulty in working out these problems arises from a failure on the part of all concerned to secure an all-around point of view. Why should so much time and energy be wasted in 'recriminations' and criticisms that are anything but constructive? The development of nursing may be represented in epochs, the first being the introduction of schools of nursing into the hospitals; second came the period of exploitation; the third epoch may be described as the period of standardization; now we apparently have reached the fourth epoch, for which I know no better name than that of readjustment, in which there *must be a coming together.*"

The absolute necessity of the "coming together" emphasized by Miss Cadmus is illustrated in a regrettable incident reported from St. Louis. Here, it is said. a demand for increased pay having been presented to the hospitals on behalf of the graduate nurses, the latter declined a request on the part of the hospital authorities for extension of time to give opportunity for a conference on the subject. We omit details and refrain from comment beyond giving the bare facts, because we are unable to secure an expression from both sides. The president of the local graduate nurses' association, when requested to give a statement of the case for publication in THE MODERN HOSPITAL, replied that it was unlikely that she would have time to prepare it. We are, therefore, unable to comment intelligently on the questions at issue.

The occurrence does, however, suggest two general reflections, which we feel justified in presenting here. One is that, as pointed out by Miss Cadmus, "failure to secure an all-around point of view" is responsible for most trouble of this kind, and that the two sides must get together and try to obtain a mutual understanding. The other reflection which occurs to us is that, no matter how good a case one or the other party to a controversy may have, refusal to put that case before the public inevitably casts a shadow of doubt upon its justice. And this leads up to another point well taken by our correspondent, which is that this is a question which concerns primarily neither the doctors nor the nurses, nor yet the hospital authorities, but the public. It is the right and the duty of the public to be informed on this question, and to see that its point of view is adequately represented in any solution attempted. In Miss Cadmus' own words, "the mistake we are making is to regard it as the responsibility of individuals or certain groups of individuals rather than that of the community."

It must be admitted that the public's own attitude towards these questions too often extenuates this error. Again quoting Miss Cadmus, "the community has been too prone to accept the view that health measures—let them be exercised by the doctor or the nurse—are not its (the community's) business." If the public is but languidly interested or frankly bored—if it can scarcely be brought to appreciate its own stake in the matter at issue, much less the justice in the respective claims—why should the matter not be fought out as a private controversy, each side taking advantage as it has the power and keeping what it can? Primarily because no question is ever settled until it is settled right. Guerilla warfare between nurses on the one side and physicians or hospital authorities on the other is bound to end only in harm to both and even more harm to the public. A court of public opinion must be formed for the settlement of these questions, and they must be settled, not as matters of private controversy, but on their true basis, as matters of public concern.

A Stimulant to Fearless Thought and Disillusionment

The human mind has infinite resources for deceiving itself. Our desires unconsciously govern our judgment, and we habitually accept as fact those ideas which will least tend to disturb our

lives. For this reason most minds revolve within a fixed sphere of thought from which they seldom emerge.

Occasionally, however, we make contact with a mind whose dynamic force bursts beyond the bounds of habitual thought and creates new ideas. A well-rounded idea launched into the world becomes the greatest of all human forces. It shatters the incrustations of thought which hold the mind within restricted limits and frees the energy of spirit which transforms the human race. Contact with such a thought is uncomfortable to those who dislike change, whose egoism can not stand the upsetting of cherished notions, and whose love of comfort is stronger than the desire to accept the truth.

All such are seriously warned against reading a remarkable book published by Dr. E. A. Codman of Boston, entitled "A Study in Hospital Efficiency as Demonstrated by the Case Report of the First Five Years of a Private Hospital."[1] The title sounds dull enough, but the book is fascinating.

In this book Dr. Codman has disrobed the medical profession of many of its time-honored humbugs, behind which many of the most prominent men hide their true motives. He has fearlessly attacked the very foundations of the system by which men secure advancement in medicine and surgery, but his reasoning is logical and supported by scientific data. He is radical in insisting that opportunity and advancement in charitable hospitals be awarded according to the efficiency of the physician or surgeon, and suggests a practical system by which efficiency can be rated. Yet he prefaces his book with these pessimistic remarks:

"It is against the individual interests of the medical and surgical staffs of hospitals to follow up, compare, analyze, and standardize all their results, because:

"1. It is seldom that any single individual's results have been so strikingly better than those of his colleagues that he would desire such comparison and analysis. Perhaps the results as a whole would not be good enough to impress the public very favorably.

"2. An effort to thus analyze is difficult, time-consuming, and troublesome, and would lead, by pointing out lines for improvement, to much onerous committee work by members of the staff that would be still more time-consuming, difficult, and troublesome.

"3. Neither trustees of hospitals nor the public are as yet willing to pay for this kind of work."

Dr. Codman's great gift consists in stripping his own mind of pretense and hypocrisy. His book tends to strip the minds of its readers of the same qualities. The book is a stimulant to clear, logical, fearless thought. It is not a book which will delight lazy minds, however. When you read it, be prepared for an exhilarating climb up the heights of thought which lead to disillusionment and truer vision.

[1] A Study in Hospital Efficiency as Demonstrated by the Case Report of the First Five Years of a Private Hospital, Dr. E. A. Codman, Codman Hospital, Boston, $1.00.

A New Member of the Hospital Staff

One of the therapeutic agencies which has been too long and too generally neglected—no more, perhaps, in hospitals than by the medical profession outside, yet certainly to the detriment of hospital efficiency—is physical exercise. Patients are now sent back to their homes after long illnesses or after surgical operations without any attempt to build up their general condition by judiciously selected and skillfully applied physical exercise. Some day this omission will be recognized as neglect; and that day is perhaps not very far distant.

Among the innovations introduced by war hospitals which are probably destined to have a beneficial practice is that of the systematic employment of supervised exercise in convalescence. We publish this month two papers which give some idea of the way in which the principle of exercise has been worked out in the army and navy, respectively. Mr. Walter D. Powell, athletic director of the sixth naval district, Charleston, has worked out a system of exercise for the physical reconstruction of convalescents which has been adopted in naval hospitals; his testimony to the value of physical exercise in the hospital will therefore be read with interest. On another page A. F. Gugel of the sanitary corps of the army describes some of the methods used at General Hospital No. 9, Lakewood, N. J., in rebuilding convalescents, particular those affected with cardiovascular conditions, by means of systematic exercise supplemented by occupational therapy.

Now, why should not this therapeutic measure be employed to its fullest possibilities by every hospital? Why should not every general hospital of sufficient size have on its staff a physical director, who, working with the physicians on the various services, should arrange and supervise suitable courses of graduated exercise for all patients capable of being benefited by it? He would cooperate also with the director of occupational therapy, where such a department exists, making sure that the kind and amount of exercise involved in the occupation given the patient was

adapted to his physical condition. Before a patient leaves the hospital, it might well be the physical director's duty to inquire into the patient's occupational conditions and habits of exercise, and to prescribe exercise to correct faulty balance induced by one-sided life. An out-patient clinic where suitable exercise could be prescribed for people in a generally run-down condition would meet a real need.

Not the least important part of the physical director's duties might be the maintenance of the hospital personnel in the best possible physical condition. Nurses have a good deal of physical exercise but it is very ill balanced. Physicians are notoriously inclined to take little or no exercise or to crowd all the exercise they do take into their vacations.

The experience of men who have established or aided in establishing such work for the army and navy would surely be most valuable to our civil hospitals, and we hope to hear before long that some hospitals of the better class have taken advantage of the opportunity to establish departments of physical reconstruction under competent men.

Once More the Rural Hospital

The rural hospital problem perhaps seems to some of us scarcely deserving of serious attention. Indeed, we sometimes grow impatient at the necessity for applying the term "hospital" to an institution so meager in accommodation, equipment, and organization that it is not capable of contributing to scientific advance or medical education.

But, if the splendid city hospital deserves to exist, this is not because of its beautiful construction, elaborate equipment, and perfect organization, but because it meets a need. The rural hospital must stand or fall, not by its success in imitating the metropolitan institution, but by its success in meeting rural needs. How important those needs are we are prone to forget, so much more clamorously voiced are the needs of the city. Yet consider: In spite of the enormous growth of cities, our population is still predominantly rural, many great and populous sections of the country being quite inaccessible to large cities and large hospitals. For instance, the state of Arkansas has only three general hospitals of over a hundred beds, and one of these is an army and navy institution, while another belongs to a railroad; Alabama has only five; Florida, two; Nevada, none; New Mexico, none; North Dakota, three.

Not only is this so; our cities themselves draw their food and water supplies and much of their population from the country. The health of the country affects the very lifeblood of the cities. The great health problem of the future, therefore, is the rural health problem—and to call it a problem is no mere empty phrase. That, away from the smoke and the grime of the cities, people flourish in health without taking any more thought for it than the lilies of the field, has been proved a pleasing fiction. Rural health surveys made in various parts of the country show an alarming percentage of physical defects. Now, the fact is that, at present, speaking generally, the rural hospital is not prepared to take leadership in the rural health movement. It must, we believe, perform a great task by preparing to assume such leadership, or else—but the alternative is not to be considered; the rural hospital must rise to its opportunity.

How? The Greater Community Association of Creston, Ia., under the guidance of Dr. F. E. Sampson, is working out an answer to this question. On another page Dr. A. E. Kepford describes some of the features of this interesting and important experiment. Two of these features seem worthy of special emphasis.

In the first place, the Creston experiment frankly recognizes that the rural hospital must rest on a broader basis than the purely medical. It is a social agency; and, on that basis, the whole community has been organized to work for the hospital as well as to be served by it.

In the second place, Dr. Sampson seems to have worked out a most interesting system of what might be called democratic financing by the community. Thus, on the one hand, the wealthy patron, with his often demoralizing influence, is eliminated; and, on the other, the interest of the people at large—so much more inclined to value what they pay for—is secured. At the same time, the institution is apparently placed on a sound financial basis.

We feel it a privilege to present Dr. Kepford's paper.

An Appeal from Belgium

We have urged on Americans from time to time[1] the appropriateness of aid from this country to the stricken Belgian nation. We have emphasized the advantage which we, as well as the Belgians, might draw from a foundation for social research in that country. We publish this month a communication from Dr. René Sand, to whom we owe the original suggestion that Ameri-

[1] A Message from Belgium, THE MODERN HOSPITAL, October, 1918, XI, 256; Our Opportunity in Belgium, THE MODERN HOSPITAL, December, 1918, XI, 460; What a Laboratory of Social Science Might Mean to the World, THE MODERN HOSPITAL, January, 1919, XII, 44.

[2] How America May Help Belgium After the War, Captain Dr. René Sand, THE MODERN HOSPITAL, October, 1918, XI, 256.

can aid to Belgium take this form.[2] The poignant pathos of Dr. Sand's few words of appeal makes us feel ashamed to import into the case any element of American self-interest.

The American Hospital Conference

On April 21, 1919, representatives of eight prominent national societies met in Chicago for the purpose of organizing a union to promote the development of American hospitals. The organizations represented were: American Hospital Association, American Medical Association, American College of Surgeons, American Nurses' Association, American Association of Hospital Social Service Workers, Association of American Medical Colleges, Catholic Hospital Association, and the Federation of State Medical Boards. The first fruit of the new union is the American Hospital Conference, in which all of the organizations named will be equally represented, and which four additional organizations, namely, the American Association of Industrial Physicians and Surgeons, United States Public Health Service, Medical Department of the Army, and the Bureau of Medicine and Surgery of the Navy, have already been invited to join.

The new partnership is one which should never be dissolved. Each of the constituent societies is in a position to make—has, indeed, already made—notable contributions to hospital progress. The activities of all of the societies will hereafter be stimulated by periodical conferences, and in place of the old patchwork program there will be introduced a rational design by means of which hospitals will be fitted to the country's needs.

What are some of the things that the American Hospital Conference may be expected to accomplish?

It will define the functions of the various necessary types of hospitals.

The relations of the hospital to the community will be clarified.

Hospital finances will be expended to better purpose.

The expenses of hospitals will be more equitably distributed.

Official hospital inspections will be made to dovetail perfectly.

Hospitals will be taught when to act independently, when to cooperate and when to combine.

Hospital trustees will acquire a keener and fuller realization of their responsibilities in the training of physicians and nurses.

Wise and uniform legislation will be enacted in several states regulating the training of medical students and of nurses.

The output of fully trained nurses and of trained attendants will be made to measure up to the country's need.

There will be a more general acceptance of certain indispensable standards of work and equipment which have been ably, but not always successfully, advocated by the American Medical Association through its Council of Medical Education, by the American College of Surgeons, by the American Nurses' Association and the American Hospital Association.

Medical men who have not heretofore concerned themselves with questions of hospital organization and administration will be induced to do so and in consequence the determination of vital questions of hospital policy will no longer be left to laymen who are unfamiliar with the fundamental principles involved.

The purpose of medical social service work will be clearly defined; hospital social service will be standardized and improved.

Means will be found to develop adequate facilities for diagnosis and treatment not only in the cities where the task is comparatively easy, but in rural communities for which entirely new facilities must be devised.

Each of the constituent organizations of the conference will have the strong moral support of all of the others. An authoritative center will be established for the guidance of public officials who are concerned in hospital administration, of legislators, and of men of means who desire to benefit the community through donations to hospitals.

With such purposes as these the formation of the American Hospital Conference must be hailed with enthusiasm. April 21, 1919, is indeed a red letter day in American hospital history.

Death of Miss Delano

As we go to press the sad news reaches us of the death, on April 15, at Base Hospital No. 8, Sauvigny, France, of Miss Jane A. Delano, one of the foremost figures of the nursing world. Miss Delano's work during the war brought her into public prominence, for it was under her direction that more than thirty thousand nurses were recruited through the American Red Cross for service with the army and navy after the United States entered the great conflict. Her work for the Red Cross was merely the culmination of an active and distinguished career which brought her friends as well as honors.

Miss Delano served the American Red Cross from first to last without compensation—a full-time volunteer. She was the last of her family, her passport application, filed a few months ago, giving the name of a prominent nurse as her "nearest relative."

"WHAT'S A CONVALESCENT CENTER"?*

Private Hicks Didn't Care So Long As It Wasn't a Hospital—How He Taught His Game Arm to Carry On

By LT.-COL. HARRY E. MOCK, M.C., U. S. A.

"Good-bye, fellers, I'm leavin' y'u."

"Where you goin'—home?"

"Nope, to Camp Dix to the Convalescent Center."

"What in hell is a convalescent center? Another excuse to keep you in the army, I suppose!"

"Guess so, anyway they say it isn't another hospital and I'll be that much nearer home." And like a true soldier, still playing the game, Private John Hicks with his back into his paralyzed fingers—not much, of course, but, as he expressed it: "Kinda feels like I'll use the old pickers yet." Then the "docs" had been on the square. When he landed in this place he thought he was done for as far as ever working again. But they had baked his arm, rubbed it, and put him wise to many little tricks about using it. And that was some good job they did on his leg, healing up that dirty wound.

Today the C. O. said they needed his bed and so he would be transferred to Camp Dix—Convalescent Center. No, not a hospital, but "a place where he would be a soldier once more just for a short time before they discharged him."

AFTER YOU'VE BEEN WOUNDED AND YOU STAY IN A HOSPITAL IN FRANCE SEVERAL LONG AND WEARY MONTHS
-AND WHEN YOU LAND IN THE U. S. A. YOU CAN'T JOIN THE HURRAH CROWDS
-AND YOU GO TO ANOTHER HOSPITAL HERE NOT CARING WHAT HAPPENS BECAUSE YOU'LL NEVER BE ABLE TO EARN A LIVING WITHOUT YOUR RIGHT ARM
-AND THE GOVERNMENT TELLS YOU IT WILL TEACH YOU A NEW TRADE WITHOUT CHARGE
- AND FINALLY YOU ARE ALL FIXED AND GET A BETTER JOB THAN YOU EVER HAD — ALSO YOUR COMPENSATION AND INSURANCE AND EVERYTHING
-OH-H-H BOY!!! AIN'T IT A GR-R-R-RAND AND GLOR-R-RIOUS FEELIN'?
TA TATA TYA TYA
BRIGGS

Cartoon by Briggs, reprinted through the courtesy of *Carry-On*.

stiff elbow and paralyzed left hand, to say nothing of a piece of Hun shrapnel in his right leg, limped away to obey orders.

Hicks had been in three hospitals in France—the evacuation, base, and finally the special orthopedic hospital, and had already spent his three months back in this country in two others. Of course he had sense enough to know that this was necessary, "all done for his own good—but a feller sure gets tired of hospitals."

It wasn't half bad in this last one, for the reconstruction aides had taught him to use a typewriter. Some way, trying to hammer the keys had brought a little strength

For the last month he had been going to school at the hospital—not exactly a school, but a shop where Captain Hendricks and Sergeant Chesley were teaching him stunts about building an automobile. Before the war he had worked around a machine shop and chauffeured a little, but in the last four weeks he had learned more about mechanics than he ever knew before. Take the carburetor, for example, he "knew what the thing was, but now he knew how the durned thing was made and what is was for." Yes, he hated to quit that school work.

So, thinking along this line, he consulted Captain Hendricks.

"Cheer up, man, you'll get some more school work in the convalescent center. It's like this: You don't need

* From Carry On, a Magazine on the Reconstruction of Disabled Soldiers and Sailors.

any more medicine, the hospital's crowded, and they need your bed. So off you go to the camp nearest your home, into the center for almost well men, where you will be on duty until the doctors are sure you are cured. Orders are not to discharge a man until his maximum restoration is secured. Know what that means? Just this—until you've all the motion back into that elbow and hand that they can help you get into them; until that limp of yours is forgotten and until you're so full of 'pep' that you're crazy to get out and go to work or go to school. Trying not to turn out any loafers from this man's army."

"But I want to go to an automobile school like this one."

"Sure boy, and you will. It's all under one educational system and you'll find a school just like it in the center or up at the base hospital which you can attend."

Therefore, you see why Private Hicks wasn't downhearted. He wasn't to be discharged yet, 'tis true, but he was going nearer home. The "docs" were going to keep on "fiddlin' with his mit until she worked." He could go to school. All this, and still he was through with hospitals.

At Camp Dix, after being examined at the base hospital, Private Hicks was assigned to Platoon 4, Company 2, Convalescent Center. He had trained at Camp Dix before going to France, but this was an altogether different kind of a place.

Still the same old company streets and the same old barracks on the outside! But when he entered the building where Company 2 was housed he thought he was in an up-to-the-minute Y. M. C. A. hut. Downstairs, no beds, but a regular club room with billiards and pool, checkers and chess, hand polo, card tables, books and magazines, and a real piano. The bare walls were decorated and color everywhere gave the impression of a homey room with a real log fire in a big fireplace. Many of the men in the place seemed pretty badly banged up, but all were apparently happy.

The sergeant took Hicks upstairs and pointed out his bed. Same old barrack room there, but its proximity to the club room below robbed it of some of its barrenness. A yellow-topped corporal sitting on the next bed was primping as though he expected a visit from his Jane.

"Just in time for the party, new-comer!" by way of introduction from the corporal.

"What party?" asked Hicks.

"Never mind, hurry and get into your dress suit and you'll soon find out."

Supper was late and Hicks was hungry. When the call finally came, he went down with the bunch. Six other men had just arrived and they were all assigned to a table. But it wasn't like the old-time mess; this was a banquet hall.

"Attention!"

Like a machine the 115 men sprang to their feet.

A general, two colonels, several captains and lieutenants had entered. After they were seated at the head table, the men resumed their places.

"Who's the general?" whispered Hicks to his neighbor.

"General Scott, of course, and that's Colonel White and Colonel Berry with him. Big doings tonight."

"What is it—the annual banquet?"

"Where do you get that stuff—annual? Somethin' doin' every night here."

Just then the band—Convalescent Center, Camp Dix, painted in big letters on the bass drum—struck up a lively tune and all joined in a song which was a parody on "There was an old soldier who had a wooden leg."

Such eats! But Hicks soon learned that good eats were part of the cure in this center.

When they reached "cakes and cream" a huge cake was brought in by four K. P.'s and placed in front of General Scott. The general then arose and with his great sword carved the thing—yes, carved it into 125 pieces.

When the cigars were passed the talk-fest began. Funny, of course, for every day hundreds of new stories are created in the army—real stories, too. But when the General talked it made a fellow feel just like going home and being a better man than he ever was before he entered the army, no matter what his trouble.

Maybe the Hun got your arm or a part of your face or left a piece of shrapnel in your lung, *but he didn't get your goat.*

This was the spirit of that banquet, and next day when Hicks met Captain Jones he received more of the same spirit.

"You're in Platoon 4 today, my man," said Captain Jones, "but just as soon as we find you have strength for the gym work and shop work, we will boost you through Platoon 3 and into Platoon 2. When that stiff joint is as loose as we can make it and those fingers, which are not really paralyzed, are once more working, into Platoon 1 you go, and that means 'discharge within forty-eight hours.' When you leave here you'll be able to go to work, or, if you can't return to your old job, the Federal Board will train you for one you can do."

"But I want to go to the automobile school like the one I was in at Walter Reed," said Hicks, who didn't find it at all difficult to talk back to this good-natured captain.

"All right, if you were able to do that over there, we will have Major Davison examine you today, and if he says you're fit, then Platoon 2 tomorrow."

Next day Hicks was promoted to Platoon 2. This allowed him to take part in many of the rougher games; also he was given forty-five minutes of good stiff physical exercise twice a day—but not until the end of a week—graduated exercises until then. And, best of all, he spent three hours morning and afternoon in the auto school. Many of the men were taking this course; not only men from the center, but a number who were able to attend from the base hospital. In the evenings he would often go to the base hospital lectures on motor mechanics and other subjects which the educational officer arranged for the men. In fact, it seemed as if this educational officer and the Y. M. C. A. director and a lot of other people were making them go to school all the time, and yet it was so interesting and was fixing them for better jobs when they got out, so that none seemed to mind it.

The doctors had their innings, too. Every day the elbow and hand were baked and then a sergeant who knew his business would rub it and bend it and work the fingers until Hicks could see that it "was comin' along," as the sergeant said. For awhile he was sent to the base hospital every morning for special treatment, but he didn't mind this as long as he still lived in the center.

One day about two months after his arrival, he was under the chassis of a car replacing the differential. He was hard at work and very interested—but not too absorbed to hear Professor Townsend, the "Y" instructor, say: "Look at that man Hicks under there using his game arm and hand. Guess Captain Jones will be firing him in a few days."

The first permanent memorial to the soldiers and sailors of Newark, N. J., was established in the two free beds in the Presbyterian Hospital of that city which were dedicated on November 22, and November 29, 1918, respectively.

SANITARY SURVEYS OF INSTITUTIONS*

Spirit which Should Govern a Survey—Points in Sanitation —Gaining the Cooperation of Executive Heads and Subordinates

By C.-E. A. WINSLOW, Anna M. R. Lauder Professor of Public Health, Yale Medical School, American Museum of Natural History

The application of scientific method to the affairs of daily life makes progress much more slowly than most of us would wish; and the principal obstacle which has delayed its advance is the indiscretion of its would-be exponents. The very name "efficiency" has become a byword and a hissing because efficiency has been so often unwisely sought on a basis of partial knowledge and with total neglect of the human factor in production. "Scientific management" has come near to being discredited for similar causes. The word "survey" in many minds summons up only images of turmoil and alarm, because so many surveys have been conducted by those who were experts only in the art of publicity and who were seeking, not the facts, but merely colorable evidence for the condemnation of the person or the institution which happened to be the victim of the moment.

Yet the fundamental principle of the "survey" is a sound one. Those who are immediately concerned in the conduct of any business are seldom trained in the methods of scientific investigation, and even if they are, the very closeness of contact, the daily familiarity with development, militates against a broad and well proportioned view of its relations. It is difficult for them to see the wood for the trees; the cumulative effect of gradual changes, instantly perceived by an outsider, is lost as the alterations in members of one's family, obvious to a visitor, are unnoted at home.

In order that an investigation of this kind shall be of service, however, it must be constantly dominated by three motives. It must be scientific; it must be constructive; and it must be cooperative.

It would seem perhaps unnecessary to emphasize these essential characteristics of a successful survey if they had not been so flagrantly ignored in conspicuous instances in the past. Surveys should deal with measurable facts, expressed in quantitative terms, so far as possible, and checked up by constant considerations of costs and of probable return. They should be governed throughout by a consideration of practical results to be obtained by concrete improvements. There is nothing at all gained by mere faultfinding. Above all they should be carried out in intimate and friendly cooperation with the administrators of the institution surveyed. There are two perfectly good reasons why a study carried on from the external standpoint only is likely to be worse than useless. In the first place, while the scientific training and the detachment of the surveyor is of supreme value, it must always be checked up by the practical experience of "the man on the job." No investigator, however well equipped, can grasp all the local variants in a particular problem. What seems at first a mistake may in the special case be the best possible way out of peculiar difficulties. Really valuable plans for reconstruction must be the joint work of the science from without and the experience from within. Again, even if the investigator could by some miracle hit on the right solution for each problem, his report is of little use unless it is put in practice. The superintendent or other executive who is to carry it out will ultimately have the fate of the plans in his own hands. If his cordial sympathy has not been secured, if the plans have not in large measure become *his* plans, he can demonstrate their impracticability after the investigator has departed without turning his hand over and without even knowing how his prejudices have worked themselves out. A short period of bitterness and recrimination—then a comfortable relapse to the *status quo* with another black mark against the expert—that is the only result of a survey conducted in the spirit of the inquisition.

With this word of warning as to the spirit which must govern a survey if it is to be of value I may pass to a brief review of some of the principal points which should be considered in sanitary surveys of such institutions as those which are of special interest to the members of this section.

Most of the points covered in such a survey fall under four main heads, air conditioning, cleanliness, toilet facilities, and preparation and service of food, and they may conveniently be discussed in that order.

In many cases a special study should also be made of illumination, with regard to the adequacy of general lighting and freedom from glare. In my own surveys I have always called in special experts to make photometric measurements and determine angles of glare; an excellent general description of the method employed in such studies may be found in a bulletin on The Hygienic Conditions of Illumination in Workshops of the Women's Garment Industry.[1]

AIR CONDITIONING

Exhaustive investigations have shown that the evil effects of bad air are due not primarily to any excess of carbon dioxid or "morbific matter" or to any lack of oxygen, but to excessive heat and humidity.

The principal symptoms experienced in a badly ventilated room are due to the influence of warm still air upon the circulatory system. Such an atmosphere causes a rise in body temperature, and pulse rate, a fall in blood pressure, a general feeling of discomfort, and a marked disinclination to physical exertion; while it injuriously affects the mucous membranes so as to constitute an important predisposing cause of respiratory disease. Any temperature over 70° (except where the air is in motion) is lowering to efficiency and injurious to health. The installation of a $75 system of ventilation in the operating room of the telephone exchange at Cambridge, Mass., was followed by a reduction in winter absences from over 4.5 to 1.9 percent of the force employed.

One of the most important steps in a survey is to obtain an accurate idea of temperature conditions. This should be done by installing automatic thermographs in the important rooms and supplementing them by observations of temperature and humidity made with the sling psychrometer.

Carbon dioxid observations should also be made with the Petterson-Palmquist machine or some equally reliable apparatus. Carbon dioxid is not in itself harmful but it is an excellent measure of the change of air necessary to avoid overheating and the accumulation of unpleasant odors.

Parallel with these analytical determinations, which must, of course, be made in considerable numbers to gain an accurate idea of existing conditions, there must go a careful study of existing facilities for heating and ventilation and their operation. Radiation surfaces should be considered and, if an automatic regulating system is in

*While this article, originally published in the Bulletin of the American Home Economics Association, applies to a wide variety of institutions, so much of it is pertinent to hospitals that it is here reproduced with slight excisions.

[1] Schereschewsky, J. W., and Tuck, D. H., U. S. Pub. Health Service, Bul. 71.

operation, individual thermostats should be carefully tested. They will very frequently be found in an extraordinary state of disrepair, unjustly discrediting a system which when in order will operate with reasonable precision.

It may generally be assumed that when a room is so crowded that the floor area is less than 200 square feet per capita some sort of special ventilation will be required. Either a fan exhaust of 30 cubic feet per capita or windows open to the extent of 0.25 square foot per capita will usually be necessary in order to ensure a reasonable air change.

If there is a mechanical ventilating plant the registers should be measured and their per capita area calculated. This area should equal about 0.1 square foot per capita. In one case studied by me 31 percent of the register areas in an office building were inadequate and 54 percent unnecessarily large. The air flow at the registers should be measured by means of an anemometer and checked up by measurements of the flow in the main ventilating ducts and studies of the rated capacity and actual performance of the fans. Sometimes the fans will be found to be of a totally inadequate type. Sometimes they can be made effective by simple changes in pulleys or motors which will permit of an increased speed. Sometimes trouble arises from the fact that the engineer is saving coal by operating the fans at reduced speed or not at all. Sometimes the fan is doing its part, while wrong proportioning of register areas and the lack of volume dampers distribute the pressure so faultily that the air is changed too rapidly in one section and too slowly in another. In a large dining hall studied by me the exhaust at the end of the room near the fan was 26 to 33 cubic feet per capita, a very satisfactory value, while at the other end of the room it was 7 to 9 cubic feet.

Kitchens and serving rooms present very pressing problems of their own and almost always require special local exhaust ventilation to protect the workers from excessive heat and to prevent odors from permeating the rest of the building. The remedy to be applied in the shape of provisions for necessary artificial air supply can, of course, generally be worked out only by a properly qualified expert. At times, however, the solution of a ventilation problem is fairly simple. I remember, for example, a hospital in Chicago, which had been greatly troubled by odors in the wards, where I found that the fresh air intake on the roof opened just over the soil pipe of the plumbing system and drew its foul air directly into the ventilating ducts.

CLEANLINESS

The general tidiness of buildings and grounds should, of course, be carefully noted, special attention being paid to the types of organic filth (manure, garbage, and the like) which may breed flies and constitute a menace to health. If opportunity permits it may be well to install large fly traps at various points about the grounds and estimate the number of flies caught in definite periods in order to indicate the seriousness of this particular nuisance.

The extent of floor area to be cleaned within the building should be estimated, the character of the floors and their condition noted, and the routine of the cleaning force observed. Six cents per square foot per annum is a reasonable cleaning cost, but worn wooden floors and complicated furniture materially increase this figure. It will frequently be found that the lack of centralized organization militates against efficiency. I know a hospital, for example, where the cleaning of wards is under the direction of the superintendent of nurses, and that of tunnels and corridors under that of the housekeeper, while the dietitian hires and discharges the servants who have to do with the preparation and service of food.

The commonest fault found in cleaning is the use of dry sweeping and dry dusting methods, which appear to survive with persistent success all assaults which have been made upon them. In one such case I found 485,000 dust particles per cubic foot of air in the room before dusting and 694,000 when dry dusting was going on, an increase of 43 percent. The use of sweeping compounds of some sort on floors and the replacement of feather dusters by cloth dusters treated with oil should be insisted on.

The replacement of wooden floors by composition or tile floors of approved type may often effect a saving in cleaning bills which will correspond to a very profitable rate of interest on the original investment.

TOILET FACILITIES

The toilet facilities provided both for patrons and for employees should be scrutinized with care, both in regard to adequacy and sanitary character.

The usual standard fixed by good practice, and in some communities by law, calls for one toilet seat for every 20 to 25 employees in a factory or office building. A much lower proportion than this causes discomfort and possible injury to health and leads also to a considerable waste of the employer's time. For example, in an office employing a large number of women clerks and with only one toilet seat for each 39 female employees I had a census made of the number of women entering the toilet rooms during each fifteen minute period. The number of persons entering a toilet room provided with only 36 seats rose to an average of 16 to 25 per minute for fifteen minute periods before luncheon and before closing time. My inspector reported that the flush tanks sometimes had not time to fill between flushings. Most significant, however, was the fact that the maximum crowding did not occur during the lunch hour or after closing time but began a full half hour before. The clerks who had evidently become accustomed to find the toilet rooms crowded had formed the habit of taking time by the forelock.

The character of the toilet rooms is of very real importance in connection with their possible rôle in the spread of communicable disease. The first essential is that they should be more than amply lighted—the second that they should be fitted up with smooth and impervious walls and floor so that they can be kept clean. A dark, dingily finished toilet room is quite certain to be a dirty and a dangerous one.

It is most important for obvious reasons that ample facilities for washing the hands, including liquid or powdered soap, paper towels, and, if possible, warm water, should be provided in connection with all toilet rooms. It is also desirable that opportunities for the handling of the same object by different persons should be reduced to a minimum, particularly after the toilet has been used and before the hands have been washed. Automatic flush tanks or those operated by the raising of the toilet seat are therefore desirable, and the locking and unlocking of toilet compartment doors by a footlatch may be recommended as a counsel of perfection.

The provision of an adequate supply of drinking water is a point which should, of course, receive attention in any institution. It would hardly be necessary to point out the importance of securing a water supply of initial purity and providing for its consumption through some means other than the common drinking cup, if it were

not still so easy to find common drinking cups in use—particularly in colleges and hospitals, according to my personal experience. Drinking water if it is cooled should be provided in containers in which it does not come in contact with the ice, as the additional pollution that comes from the handling of ice to be dropped into water is a wholly unnecessary risk.

A word should be said in this connection as to the provision of locker and lounging rooms for employees. These should be adequate, well lighted, attractive and orderly, particularly in connection with kitchens and dining halls where the self-respect of the staff is an essential factor in cleanliness and safety. Yet I have known of a rather elaborate dining hall with a basement locker and lounging room for ninety colored waiters having only about two hundred square feet of free space between the rows of lockers, and with a dark interior locker and lounging room lighted by one 15-watt lamp for the white employees.

There are many good types of metal lockers now on the market and the inconvenient and dirty wooden lockers should be replaced as rapidly as possible. For men expanded metal lockers are perhaps preferable on account of the better ventilation which they offer, but women prefer solid steel lockers on account of their freedom from dust. Lack of provision of lockers large enough for women's hats is a source of inconvenience and disorder in many offices. It should be noted that the price of steel lockers varies widely and some of the more expensive types are scarcely worth the extra cost involved.

PREPARATION AND SERVICE OF FOOD

The equipment provided and the methods in use for the preparation and service of food, of course, require a particularly careful study on account of the sanitary and hygienic problems and the considerable financial considerations involved.

Storage facilities should be examined in detail and special attention paid to provisions for refrigeration. It is surprising to find how many large lunch rooms and dining halls are provided only with wooden lined ice boxes often imperfectly cooled by ice. In a large hospital I had automatic thermographs installed in such ice boxes and found a meat room ranging between 41° and 47°, and usually over 44°, while a cooked meat and vegetable room was usually between 44° and 50°. These figures were obtained in May and the condition of food kept in these rooms in August must have been most dangerous. The installation of a brine or ammonia coil refrigerating system may often prove a real economy, particlarly where ice cream is being manufactured.

The floor and walls of kitchens and serving rooms should not only be of impervious material but light-colored, and such rooms should be particularly well lighted. Cleanliness is very largely dependent on external conditions, and it is impossible to secure high sanitary standards in a dingy kitchen with worn wooden or cement floors and dilapidated walls.

From the standpoint of equipment, the commonest defect I have found is the lack of a modern dishwashing machine. The old-fashioned tank machines do not rinse the dishes in clean water and are cumbrous and costly to operate. I believe that as a rule one of the newer patterns of washing machine will prove not only more sanitary but much more economical in operation.

The general cleanliness of handling of food and its protection from dust and flies should be noted. Kitchens and serving room should, of course, be free from rubbish and outdoor clothing, and pet animals and vermin should be absent. Special attention may well be paid to the method of handling waste materials, the condition of garbage cans, and the presence or absence of covers.

The extent to which it is necessary that food should be handled in preparation and service is a very important and difficult one. Human contact is generally more dangerous than any other kind of contamination, and I am in hopes that members of this association may some day conduct a detailed investigation, by time studies, to determine just how much direct use of the hand is really necessary in rapid service. It is common in lunch room service for even slices of ice cream and, of course, meat and potatoes, to be placed on the plates with the fingers.

Until the handling of food is much less common than at present I consider special provision of facilities for hand washing, with hot water, soap, and paper towels, an essential part of kitchen and serving room equipment. Furthermore the systematic medical examination of kitchen and serving room and dining room employees is a most important measure of protection if it can possibly be attained. In any large group of employees carriers of the germs of diphtheria, tuberculosis, syphilis, and typhoid fever will occasionally be found, and one cough or a single touch with an unclean finger may infect scores of patrons. New York City has adopted an ordinance providing that no person affected with communicable disease shall be permitted to engage in the preparation of food for the public, and compelling all such food handlers to submit to an inspection when required. Montclair, New Jersey, has gone even further in requiring that a certificate of examination shall be filed as a regular routine every three months by all food handlers in public places, and the Board of Health will furnish, for a nominal fee, certificates to servants employed in private families.

The general character of the food purchased should, of course, receive attention, and particular study should be made of milk and shellfish, the two foods which are most commonly responsible for outbreaks of communicable disease. It cannot be too strongly emphasized that no milk is really safe unless it has been pasteurized by the holding system (heated to 140° F. for twenty minutes) and such milk should show less than 50,000 bacteria per cubic centimeter. I recall recent cases in my own experience in which the milk used in a university dining hall averaged 770,000 bacteria per cubic centimeter and that used in a hospital, 1,200,000 per cubic centimeter.

Finally, some study should be made of the dietary values of the food supplied, of its protein content, and of the extent to which fresh fruits and vegetables are represented in the diet. An excess of meat is an exceedingly common fault in lunch room and dining hall menus, accompanied by a lack of salads and attractive desserts. The only remedy in such cases is the employment of a trained dietitian to superintend the selection of the food to be served.

THE PRESENTATION OF RESULTS

After the survey has been completed the most difficult work of the investigator begins. The engineering part, the determination of facts and remedies, is comparatively simple. It is the psychological problem, the enlistment of active interest in proposed plans of reform, that requires almost superhuman skill. The men at the top of any large enterprise can usually think broadly along lines of efficiency and economy. The men in immediate charge of departments are often of a different caliber. They are commonly conservative and suspicious of novelty, and it must be constantly borne in mind that any suggestion of change is likely to be construed as a criticism and, at least subconsciously, resented. Yet it is these subordinates who hold the success of the plan in their hands.

First of all, then, the survey itself must be conducted in intimate cooperation with these subordinate executives. Each defect and each suggested change should be taken up with them. If they can only be made to feel that the survey is intended to help them, to secure the facilities they need and deserve, the fight will be almost won.

The report of the survey should be presented in clear and compact form, with graphs and photographs to illustrate important points and it should always be preceded by a very brief digest, setting forth existing conditions, criticisms, recommendations, costs of savings, and advantages.

Finally, as a last precaution, before the report is finally turned in, I always secure a conference of the higher executive and all subordinate executives affected, and go over the criticisms and recommendations point by point so that I may either secure a general approval of the principles involved and a general endorsement of the accuracy of the facts presented, or have an opportunity of joining issue with critics in open meeting. This procedure, which I learned through association with Dr. Hollis Godfrey, president of the Drexel Institute, and one of the ablest scientific management experts in the country, has proved of incalculable benefit.

I cannot close even this brief paper without expressing my appreciation of the opportunity of speaking before the Home Economics Association, because of my appreciation of what its present members are doing, and, above all, of what its founder did, for the cause of scientific living. At the Fifty Year Memorial meeting of the Massachusetts Institute of Technology a fortnight ago, one name, among all the great names in the history of the institute, was cheered longer than any other, the name of Ellen Richards. It was my privilege, as it was that of many of you before me, to be a pupil of Mrs. Richards in the flesh; but all of us who are working for the better ordering of the affairs of daily life are, and for generations will be, her disciples in the spirit.

ORGANIZATION OF BASE HOSPITALS

United States Public Health Service Acts Promptly After Act of Congress—An Easily Expanded Organization Required

Most satisfactory progress has been made by the United States Public Health Service in taking over and putting in operation the base hospitals at former army camps and in providing additional facilities for the treatment of disabled members of the military establishment.

Four of the base hospitals have already been opened for the reception of patients and three more will be ready very shortly. By the end of April it is confidently expected every one of them will be doing its bit in returning disabled soldiers, sailors, and marines to civil life wholly reconstructed.

The base hospital at Houston, Tex., was put in operation on March 15, just two weeks after Congress directed the Public Health Service to take up this important work. The hospitals at Greenville, S. C., and Palo Alto, Cal., were opened April 1, and the one at Augusta, Ga., on April 2. The Jacksonville, Fla., Montgomery, Ala., and Alexandria, La., hospitals are almost ready to open.

At the state university of Iowa, Iowa City, arrangements were made to care for three hundred soldiers from that state in ideal quarters. The necessary equipment is being assembled and in a very short while the institution will be in operation. A large building was secured at Waukesha, Wis., which will be transformed into a hospital for three hundred patients. The necessary improvements and changes in the structure are now being made.

Until the Public Health Service is able to form an accurate estimate of the number of patients to be admitted to the hospitals, skeleton organizations, easily elastic, will be maintained. At first there will be only a comparatively small staff of physicians, nurses, and attendants. Arrangements have been made, however, to expand this organization on short notice. A list of officers in the medical reserve of the Public Health Service, has been prepared in the order in which they will be called. Through the cooperation of the American Red Cross, where nurses are being recruited, a similar list of nurses has been prepared. The plan of operation has been so carefully and efficiently prepared that there should be no appreciable delay in calling staffs sufficient to care for the maximum of 1,500 in each of the base hospitals. It now seems more than likely, however, that the expansion in the hospitals will be gradual.

Generally speaking, patients will be assigned to hospitals nearest their homes. It may be advisable later to change this policy as the necessity for special treatment might require centralization of some of the more unusual ailments at other government institutions where better results might be expected.

The following order has been issued by the Surgeon-General of the United States Public Health Service:

"In accordance with Public Act 326, approved March 3, 1919, entitled 'An act to authorize the Secretary of the Treasury to provide hospital and sanatorium facilities for discharged sick and disabled soldiers, sailors, and marines,' you are directed to admit to any relief station of the Public Health Service any discharged sick or disabled soldier, sailor, or marine army or navy nurse (male or female), provided that the disability for which he seeks treatment is due to illness or injury incurred previous to discharge from the military forces.

"When a reasonable doubt exists whether the disability or injury occurred before discharge, the applicant should be placed under treatment and a statement of the case submitted direct to the Chief Medical Advisor, Bureau of War Risk Insurance, for decision as to his eligibility.

"The applicant must present evidences of illness or disability at the time of his separation from the service, either by official discharge, or his hospital record. When this evidence cannot be had immediately and the seriousness of the applicant's conditions does not warrant delay, he may be admitted and his papers secured as early as possible. If the applicant has a certificate of discharge without statement of any disability, the Officer in Charge may consider whether the disability for which he claims treatment is due to a reactivation of a condition for which he had previously received treatment while in the military service, or if the present disability can be reasonably connected with a former injury or disease incurred in the military service.

"All persons discharged from the military forces applying for medical relief under this act, shall when able, and unless they have previously done so, fill out Form No. 526. The medical officer shall fill out Form No. 504, both forms being forwarded promptly to the Chief Medical Advisor, Bureau of War Risk Insurance."

This order is calculated to bridge the gap until all of the hospital facilities have been made available. It will also serve the purpose of caring for a great number of men, not seriously disabled, who reside in communities far removed from any of the hospitals. At present 118 of these relief stations have been put into operation and each has made ample provision to meet this new call for service.

A happy man or woman is a better thing to find than a five-pound note. Their entrance into a room is as though another candle had been lighted.—Robert Louis Stevenson.

CERTAINTY IN STERILIZATION

Possibility of Error Reduced by Gauge to Record Time and Pressure of Sterilization and a Simple Method to Call Attention to Unsterilized Packages

BY A. R. WARNER, M.D., Superintendent, The Lakeside Hospital, Cleveland

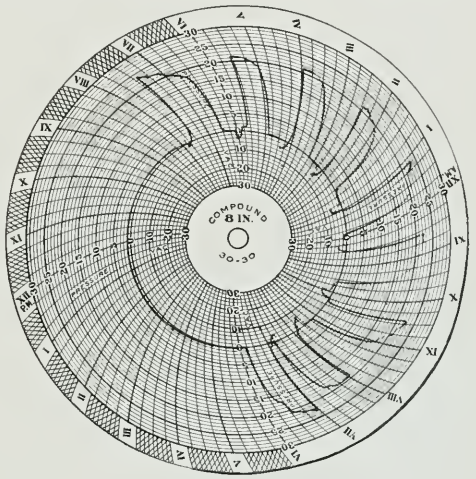
In the process of preparing sterile linen for operations, there are many possibilities of error. Several years ago the thought occurred to me that perhaps error in this process accounted for a certain number of those cases of infection following operation when the nature of the case seemed to indicate that infection should have been prevented. Study was therefore given to the possible sources of error and their elimination.

The first process to be carried through without error is the wrapping of the linen to be sterilized. In most hospitals this is done in the operating room by nurses under the direction of the head nurse, and all wrapping is carefully done. It is quite impossible, however, for the nurses always to detect broken threads and small holes in the wrapping material. It is therefore advisable that all wrappings be with two layers of cloth, each of which are apparently intact. Two layers are much more effective in keeping out fine dust than one. These covers should be carefully pinned and placed so that they will not readily become loosened in the subsequent handling. The linen wrapped must be absolutely dry. Wet linen condenses so much steam that the packages become almost soaked throughout with water in the process of sterilization. This markedly delays the penetration of the heat and the usual vacuum drying after sterilization scarcely dries the surface.

It is possible to sterilize linen by one sterilization in the autoclave, but this requires a pressure of 115 to 125 pounds actually maintained from twenty to thirty minutes and there must be added to this the time necessary to build up the pressure and the time given to drying. It takes more than an hour for most sterilizers to carry through a load. Many times this sterilization is done by orderlies and other attendants not absolutely reliable. To these there will come the temptation to hurry the last load before dinner or the last load of the day, and this sterilization may not have been effective. To obviate this difficulty, ordinary recording-steam-time pressure gauges were put on the autoclaves at Lakeside and connected with the inner chamber. In this way a graphic record of the pressure in the autoclave for the full twenty-four hours is recorded. These gauges are locked to make tampering impossible, and each day a responsible person changes the dial and notes whether or not all the sterilizations of the day before were effective. In fact this dial is watched throughout the day, for those who sterilize know that the record of each sterilization must comply with the rule.

All that this recording gauge, or in fact any gauge, will show is the pressure attained and the time this pressure was sustained. It will not show the infiltration of steam into the packages. It is well known that a piece of ice carefully wrapped may be carried through a routine sterilization and come out a much smaller piece of ice, but not more sterile than it was when it went in. A large bundle of damp linen will resist penetration sufficiently to interfere with proper sterilization of the center of the bundle. This error can be largely eliminated by wrapping for sterilization only dry linen. It is possible, however, to interfere with the effective sterilization of dry linen if the packages are of considerable size and the carrier packed too tight; this, however, requires needlessly large packages and most careful packing to accomplish. This danger may be checked at any time by the use of "Sterilizer Controls." These little tubes contain a tablet which melts at 118° centigrade. If this tablet is melted in the process of sterilization there is no question whatsoever about the efficiency of the process. These tablets should be used sufficiently often to check up the size of the packages and packing.

The linen comes from the sterilizer sterile, but it must be kept sterile until used. It is not possible to keep damp packages of linen sterile. The capillary currents in moist cloth will carry infection from dust and contact through two wrapping layers, and theoretically at least, might carry infection to the very center of the bundle. If the



Graphic record made by recording gauge.

linen goes into the sterilizer perfectly dry and sufficient time under vacuum is given, it will come out practically dry, but so often a small defect in the sterilizer prevents the securing of the proper vacuum, and the linen comes out too wet to be exposed or handled. To meet this contingency at Lakeside, a sheet-metal drying oven was built next to the autoclave. A liberal supply of steam pipes in this give it considerable drying capacity, and linen may be transferred immediately to this oven if it comes from the sterilizer in any way damp. This oven is now running all the time anyway to dry the renovated gauze, so that it is always instantly available.

These precautions seem to provide fairly well for sure sterilization if the linen actually goes through this process. It is possible, however, that a package of linen for sterilization may somehow get mislaid, either in the operating room or in the sterilizing room and find its way to the operating table unsterilized. To avoid this, experiments were made to find some controls cheaper than the commercial tablets to test the sterilization of each package. It was found that the commercial indelible inks which write red when fresh are entirely satisfactory; inks which are a pale gray when fresh can also be used by the addition of coloring matter. A small scrap of paper dated the date the package was prepared for sterilization is included in each package of linen. On the inside of the package this writing will keep bright red for several weeks at least, if not sterilized. In the process of steam sterilization, this ink changes to black, and there is

a limited amount of infiltration in the paper which readily distinguishes the ink blackened by steam sterilization from the same ink blackened by exposure to light or dry heat. It is possible, therefore, for the surgeon to know positively that each package of linen has been through the sterilizing process. At Lakeside we used this check for almost a year before an unsterilized package came to the operating table. The red date immediately attracted attention and the package was discarded. No explanation of where or why this package escaped sterilization was obtainable, but the fact remained that it was not sterilized and its use in the operation would have been a menace to the patient.

This date slip with the red silver ink is so inexpensive and simple that it is worthy of extensive use. The expense of a commercial control for each package has curtailed their general use for this purpose. While the control tablet does not melt under 118° or sterilizing temperature, it is likely that the ink will be blackened by temperatures well under this. It is necessary, therefore, in using the ink slips to be certain by the time-recording gauge, or otherwise, that each load which went through the sterilizer was really sterilized.

GOVERNMENT HOSPITALS ASK FOR TECHNICAL MEN

Reconstruction Work Gives Employment to Officers and Enlisted Men With Special Knowledge—Transfer Permitted by the War Department

Officers and enlisted men are needed by the division of physical reconstruction of the War Department for administrative and instruction work in hospitals. Men who have had technical, trade, commercial, or agricultural training are especially desired as instructors in the curative workshops.

Authority has been granted by the War Department to transfer to the reconstruction division any commissioned or noncommissioned officer or enlisted man from any branch of the service, who is no longer needed in his present assignment and who desires the transfer.

These men will be sent to hospitals functioning in physical reconstruction. The program is now in operation in twenty-five hospitals with an enrollment of 10,000 disabled soldiers in bedside and ward handicrafts and studies, technical and trade work in shops, agricultural work in hospital farms and gardens, stenotype, typewriting, other commercial work, and academic work.

While the Clocks Tick

Tick-tock, tick-tock! Day and night the clocks sing time away—the grandfather clocks along the wall, with their deep, steady click; the cuckoo clocks with their fantastic carvings and their punctual feathered tenants, and the tiny, dainty watchlings, no larger than a coin, fashioned to encircle milady's supple wrist.

It looks like a bit of old Switzerland, yet it is France—the little clockmaking town of Cluses in Haute-Savoie, not far from the Swiss border. Here is the National School of Clockmaking, wherein many of the war's maimed are now finding employment. This intricate and fine art is being acquired by men who by reason of their wounds have been incapacitated for heavy work. A new annex exclusively for "mutilés" has been built with funds furnished by the American Red Cross.

There the "mutilés" will work, finding new interest in the things that shape themselves beneath their delicate tools, while the clocks tick steadily on, as if to say "Time flies! Time flies! Time flies!"—*Red Cross Bulletin.*

HOSPITAL, MEDICAL AND SPECIAL MEETINGS

RED CROSS CONFERENCE IN FRANCE

Leading Experts of World to Formulate Extended Program of Red Cross Activities in Interest of Humanity—Second Conference to be Held After Official Declaration of Peace

To prepare a program which will relieve suffering and combat disease in the general interest of humanity, the Committee of Red Cross Societies held a conference of leading experts of the world at Cannes, France, on April 1. The meeting was attended by foremost specialists in various fields, who represented France, England, Italy, Japan, and the United States.

This first conference was merely preliminary on the part of the Committee of Red Cross Societies to formulate and to propose to the Red Cross societies of the world an extended program of Red Cross activities in the interest of humanity. The chief question considered was that of the organization of the International Council and Bureau of Hygiene and Public Health, which is to handle the work undertaken in connection with the prevention of epidemic disease, tuberculosis, venereal disease, and child welfare. As the specialists in attendance were recognized authorities on these subjects, the program which they drew up will probably deal with the latest and best methods of relieving suffering and combating disease.

The program will be submitted at a later conference of all Red Cross Societies to be held in Geneva thirty days after the official declaration of peace. The call for this later conference was issued February 13 by the International Red Cross at Geneva. The Committee of Red Cross Societies was formed in the earlier part of March, with headquarters at Cannes and administrative headquarters at No. 2 Place de Rivoli, Paris. It is composed of representatives of Red Cross societies of France, Great Britain, Italy, Japan, and the United States, with Henry P. Davison, formerly chairman of the War Council of the American Red Cross, as chairman.

This issue of THE MODERN HOSPITAL goes to press before a report of the conference can be received, and we are therefore unable to publish the list of those who attended. Among the representatives to whom invitations were issued, however, were the following:

France.—Prince Paul Emile Roux, director Pasteur Institute, Paris; Dr. F. Widal, physician to Hôpital Cochin, Paris; Major Edouard Rist, Service de Santé, France; Dr. Calmette, Pasteur Institute, Lille, France.

England.—Sir William Osler, regius professor of medicine, Oxford University; Sir Walter M. Fletcher, secretary of medicine, Research Committee; Col. S. Lyle Cummins, advisor in pathology, B.E.F.; Sir Robert Phillips, Edinburgh; Sir Arthur Newsholme, London.

Italy.—Dr. Ettore Machiafava, University of Rome; Lt.-Col. Aldo Castellani, University of Naples; Dr. Giuseppe Pastanelli, University of Rome; Col. Caesar Baduel, Florence, Italian Red Cross, Rome.

Japan.—Dr. Ryotaro Inaba, director of hygiene laboratory, College of Medicine; Dr. Kiyoshi Shiga, professor Imperial Institute for Infectious Diseases, Tokio; and Dr. Hideyo Noguchi, Rockefeller Institute, New York.

America.—Dr. William Henry Welch, director School of Hygiene and Public Health, Johns Hopkins University; Dr. Simon Flexner, director of laboratories, Rockefeller Institute for Medical Research, New York; Dr. Hermann Michael Biggs, Public Health Commissioner, New York State; and Dr. Edward Robinson Baldwin, director of Edward L. Trudeau Foundation, New York.

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AN INTERNATIONAL CONFERENCE ON THE REHABILITATION OF THE DISABLED

Early and Intensive Training—Standardization of Artificial Limbs—Special Attention to Tuberculosis—Extension of Work to Industrially Crippled

By DOUGLAS C. McMURTRIE, Director, Red Cross Institute for Crippled and Disabled Men, New York

The retraining of disabled men for lives of self-support is no longer in the experimental stage. The belligerent nations have found it wise and profitable to salvage the remaining abilities of their disabled men, and each has determined a definite course of action for physically reconstructing and vocationally retraining disabled soldiers.

All the national programs are different, and it will be found that the same problem has been handled in different ways, with varying degrees of success. With the problem now confronting America of working out the most satisfactory methods of restoring disabled soldiers to lives of usefulness, what could be more beneficial than a meeting of the experts of the various countries to exchange experience upon the vital points of rehabilitation?

With such a purpose in mind, the Red Cross Institute for Crippled and Disabled Men, acting in cooperation with the Red Cross Institute for the Blind, invited to New York for an unofficial conference the leaders in the work in the allied countries. Almost all answered the call, notwithstanding the pressure of work immediately following the armistice, with its sudden increase in the number of military discharges. It was felt that such a gathering of eminent foreigners would stimulate a constructive public interest in the rehabilitation of the disabled.

The scientific sessions were of great interest and profit to those active in the field. Upon the presentation of each point in the experience of the different countries, there would follow discussion of the divergences of practice.

Space does not permit of a complete summary of the proceedings, but a few unanimous conclusions will serve as high lights in the scientific sessions of the conference.

1. Rehabilitation must be begun very early, and a plan for the soldier's future must be worked out with him soon after his injury. No period of idleness must be allowed to set in before a man is started on the road to self-support.

2. Under no circumstances must a man's pension be reduced because he is industrious and earning a good livelihood. Compensation for both specific and non-specific disability, resulting from either wounds or disease, should be assessed on physical condition without reference to wages.

3. Courses of reeducation should be intensive and as brief in duration as is consistent with the successful holding down of a prospective job. Men should not be permitted to contract, during lengthy periods of training, the habit of dependence on the government for maintenance.

4. Since tuberculosis constitutes one of the major problems of rehabilitation, intelligent and adequate handling of it can only result in much benefit to society, but conversely, unwise and insufficient treatment and training will result disastrously.

5. Artificial limbs and appliances should be nationally standardized. It was the opinion that manufacture might best be provided for in a government factory.

6. Social service is one of the most essential factors of the organization of rehabilitation.

7. The public must be taken into confidence on the efforts being made in rehabilitation, and there must be enlisted in the cause community support, understanding, and enthusiasm. Without this no national program can be completely successful.

It was brought out at all the sessions that reeducational advantages should not be restricted to disabled soldiers, but should be extended to the cripples of industry—one hundred times more numerous than those disabled in battle.

The list of official delegates reads like a "Who's Who" in the field of rehabilitation.

France could have sent us no more representative worker in the field of the cripple than Dr. Maurice Bourrillon, director of the National Institue for War Cripples at St. Maurice, and president of the Permanent Inter-Allied Committee on War Cripples. Although past three score and ten, Dr. Bourrillon took active part in the meetings, presenting several valuable papers. With Dr. Bourrillon came the orthopedic surgeon, Dr. André Treves, chief of staff of the School of Reeducation at Rennes, and Edmond Dronsart, director of the School at Montpellier. In the party were also the representatives from Belgium and Italy, M. Louis Alleman, of the Belgian Military Institute for War Cripples at Port-Villez, France, and Professor Vittorio Putti, the renowned orthopedic surgeon and director of the Rizzoli Institute at Bologna. Accompanying the continental delegates was Miss Grace Harper, Chief of the Bureau of Reconstruction and Reeducation of the American Red Cross in France.

The head of Great Britain's delegation was a woman, Mrs. Ethel Wood, Secretary of the Ministry of Pensions. Mrs. Wood proved a most worthy representative, presenting Britain's work for the cripple in a clear and sympathetic manner and entering heartily in all the round table discussions. Mrs. Wood has lost "her men" in the war, but that loss has quickened her interest in what she regards as the noblest work in which she can engage—salvaging man power. England sent us also Maj. Francis Meynell, of the Ministry of Labor, and Capt. Percy Sharp, director of Curative Workshops, Shepherds' Bush Military Orthopedic Hospital, London.

From Canada came a large delegation from the Department of Soldiers' Civil Reestablishment. Included in the party were: Maj.-Gen. G. Carlton Jones, F. Gerald Bott, Maj. R. W. Coulthard, Lt.-Col. F. McKelvey Bell, Gerald A. Boate, Maj. H. P. Stanley, Capt. Edwin A. Baker, N. F. Parkinson, and others.

Practically the entire staff of the Reconstruction Division of the Surgeon-General's office were present. Col. Frank Billings, chief of that division, outlined the work done in the hospitals in this country. Col. Charles E. Banks represented the Bureau of War Risk Insurance. The Federal Board for Vocational Education was represented by Dr. C. H. Prosser, the director, and many of the workers of that organization.

Among the representatives of the American Red Cross were: Dr. Stockton Axson, Eliot Wadsworth, W. J. Hiss, Col. C. H. Connor, Curtis E. Lakeman, and other national and divisional officers.

The conference concluded with a thrilling public meeting at the Hippodrome.

OCCUPATIONAL THERAPY, VOCATIONAL RE-EDUCATION AND INDUSTRIAL REHABILITATION

Conducted by DOUGLAS C. McMURTRIE, *Director Red Cross Institute for Crippled and Disabled Men* and ELIZABETH G. UPHAM, *Advisor in Occupational Therapy, Milwaukee-Downer College.*

HELPING THE WOUNDED SOLDIER TO "COME BACK"

Fundamental Aim of Work at Walter Reed General Hospital Curative—Psychological Examinations Help to Make Judicious Selection of Vocations for Patients—Mental Attitude a Powerful Factor in Rehabilitation

By BIRD T. BALDWIN, Major, S. C., U. S. Army, Director Department of Occupational Therapy and Chief Psychologist, Walter Reed General Hospital, Takoma Park, D. C.

The first systematic development of occupational therapy at Walter Reed General Hospital was initiated in February, 1918. From the simplest kinds of carpentry, the work grew apace with the clearly defined needs of the patients and the facilities which could be furnished.

Fig. 1. Methods of measuring extension-flexion of elbow in psychological laboratory.

After a preliminary effort, it was found that such treatment of functional defects as had been planned was impossible without adequate equipment. The work which had been started proved, however, of very definite value in keeping cheerful, contented, and physically well the patients who were engaged in it; and, with the value in mind, the shop was continued for those patients who cared to work in it.

The fundamental aim of the work in the department of occupational therapy is curative. The specific purpose is to help each patient find himself and function again as a complete man, physically, socially, educationally, and economically; physically, by helping to restore his body so far as possible to its normal condition; socially, by enabling him to feel that despite his physical handicap he may still be a self-reliant and self-respecting member of the community; educationally, by furnishing him with

Fig. 2. Training in use of prothesis for right arm.

Fig. 3. View of the administration building and some wards at Walter Reed General Hospital, Takoma Park, D. C.

Fig. 6 (below). Light work in plastic modeling compositions and clay has sometimes decorative and artistic value as well as therapeutic. Perhaps an injured hand will lead some man to the discovery of an unsuspected talent; neither of these two men had ever handled any of the instruments before.

Fig. 4. This patient with his arm strapped down is undergoing no more terrible operation than having measured the extension-flexion of his joints and fingers in the psychological laboratory. Curative and educational work will be assigned to him on this scientific basis.

Fig. 5. Carving wooden handles is excellent light curative work for the left arm and hand, but that is not its only claim to interest, as the absorbed expression of the soldier seems to indicate. The results are mounted to the left.

Fig. 9 (below). Tools for the disabled. Note the use of dental modeling wax, which is easily molded and attached to the hand with the application of warm water to the wax, and the special appliances and tools for arm amputation cases.

Fig. 7. This model aeroplane is the completed work of some light therapeutic occupation undertaken in the well-equipped machine shop, where disabled hands achieve wonderful results — the most wonderful in some cases being their own cure. For those not mechanically inclined, rug-weaving or fine jewelry work may furnish the same means of cure and satisfy the same creative instinct.

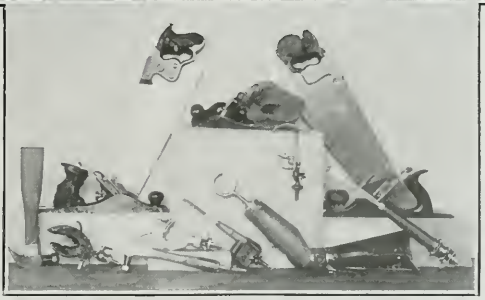


Fig. 8. Just beginning a project in the workshop, which may result in a small but perfect aeroplane like the other man has made or in any of the other contrivances which occupy minds and loosen stiffened fingers. The soldiers who return from here take home trophies of which they are almost as proud as of the German helmets they brought back from "over there."

such a training that he may make the most of his mental and physical resources and increase his personal efficiency; and economically, by providing him with a means of earning a comfortable livelihood so that his return to civil life may be an economic asset instead of a liability. The specific aims are functional restoration and the acquisition of habits of industry through normal work activities.

The method of formal mechanotherapy, or formal medi-

cal gymnastics, which has been so widely used, consists of exercises of a quasi-passive nature on special apparatus designed to give opportunity for the execution of repeated movements involving specific joints. This method has the advantage of isolating particular joints from the rest of the body and allowing for the construction of special apparatus designed to give repeated exercises under controlled conditions for limited periods of time.

The disadvantages of the mechanotherapeutic method are that the human body is more than a machine where the voluntary movements are concerned; and it is very doubtful whether the formal repetition of movement from a mechanical source is of maximum therapeutic value in increasing the amount of movement whether in the affected part or as an integral part of the larger coordination of movement of which each particular movement must ultimately be an essential part. The application of mechanotherapy does not allow for the personal initiative of the subject, gives little or no opportunity for sustained effort.

In the curative shops special projects, special machines, and special tools are set aside for strictly curative cases, and the instructors check the movements which each man makes in order to see that special joints are not favored or over fatigued. A distinct advantage possessed by the workshop type of therapy consists in the fact that the patient here is a member of a social group and turns out a tangible product of economic value; he is thus brought to full realization of his social fitness and economic usefulness —a factor which is of inestimable value in encouraging and inspiring him. He also notes from day to day in the psychological laboratory and shops the increase in functional restoration and is offered opportunities to try the same type of movement in other allied activities.

Fig. 10. This patient with an injured left hand is engaged in work in the Gobelin tapestry room which requires in particular the abduction and extension-flexion of the fingers.

ORGANIZATION OF DEPARTMENTS

The department of occupational therapy is divided into five sections: Administrative, psychological and statistical, general or academic, technical, and recreational. The department has been a training and demonstration school for other hospitals and an experimental laboratory for trying out methods of teaching, developing outlines of subject matter, standardizing types of equipment, and selection and training of personnel.

The administrative department consists of the ordinary duties of a record and property office. This has required a large staff of clerks because of the rapidity of the growth of the department, the large "turn-over" of patients and the compilation of reports and data for the Surgeon-General's office.

The psychological and statistical department has been primarily responsible for the psychological and educational surveys of individual patients. It has made an intensive study of the learning problems encountered under the curative workshop schedule, the adaptation of curative methods to particular patients and specific disabilities, the application of trade tests and vocational guidance, and the measuring of intelligence by improved methods. The department has been very successful in measuring the increase and strength of the movement of partially ankylosed joints and stump limbs.

The academic or general department offers subjects from the most elementary grade through high school grades. The department has been particularly successful in reaching large numbers of patients who have not had the advantages of school training and who have been desirous of taking advantage of courses which have required some academic background.

The technical program comprises a wide variety of subjects, offering valuable instruction to the men who are mechanically inclined. The automobile department early seized upon the idea of doing practical work repairing cars. This has given the men opportunity to put in practice what they have learned in class discussions. With the construction of the new shops and the purchase of machinery, and with the settlement of the type of power, this promises to be a very valuable feature of the curative work. The drafting section has been particularly successful in arousing the interest of the men, and gratifying results have been obtained in this work. The farm has had a successful year, and the greenhouse work is proving to be profitable. The woodworking department, in addition to its curative work, has done a great deal of post repair work and has made possible many conveniences in the new shops. The rug-weaving section has always appealed to patients, and many new types of curative exercises have been developed. Especially fine work has been produced in the jewelry section. The modeling has developed the artistic temperaments of several men and provides them with a pleasing occupation.

Fig. 11. Jig-saw work requiring little or extensive movement of ankle or knee, as the case may require.

The recreational department has handled the formal exercises and play hours of the patients. With the sending to this post of three or four instructors, the work was subdivided so that specialization was made possible, and a great deal of ward work has been carried on. One instructor was able to devote most of his time to the amputation cases. Cooperation with the orthopedic section made this work more profitable. This department, in cooperation with the department of physiotherapy and the Red Cross, has general supervision of the centralizing and direction of all recreational work, including plays, games, physical training, dancing, entertainments, excursions, music, and ward amusements.

The complete list of courses offered in the department of occupational therapy is as follows:

Academic.—English, French, Spanish, Arithmetic, Geometry, Algebra, Trigonometry, Penmanship, Left-hand Writing, Civil Service Preparation, History, Physics, Chemistry.

Agricultural.—Truck Farming Out Doors, Vegetables in Greenhouse, Text Book Studies, Flower Growing.

Arts and Crafts.—Wood Carving, Engraving, Jewelry Making, Silversmithing, Watch and Clock Repairing, Enameling.

Commercial.—Commercial Arithmetic, Commercial English, Short Hand, Stenotypy, Filing and Recording, Bookkeeping, Salesmanship, Typewriting, Commercial Law, Duplicating and Calculating Machines.

Display Painting.—Lettering, Poster Making, Sign Painting.

Drafting.—Working Drawings, Architectural Drawing, Tracing and Blueprinting, Topographical Drawing, Freehand Sketching, Perspective.

Leather Work.—Shoe Repairing, Novelties.

Mechanical and Electrical.—Oxy-acetylene Welding, Wiring for Bells, Lights, Motors, Machine Shop Practice, Telegraphy, Motion Picture Operation, Radio Operation, Mechanical Studies, Electrical Studies.

Orthopedic.—Artificial Limb Making.

Physical Education.—Athletic Sports and Games, Calisthenics.

Printing.—Hand Composition, Press Work, Linotype Operation.

Woodworking.—General Carpentry, Cabinet Work, Framing, Use of Steel Square, Pattern-making.

Word Occupation.—Hand-craft Work, many of the above subjects.

RECONSTRUCTION AIDES

The work of the aides started February 15, 1918. The first work consisted of knitting colored wool squares for blankets, together with some machine knitting. The men for the most part were bed patients and welcomed the opportunity to do something.

Gradually the work spread through the different wards and was finally systematized and organized.

The following list of activities have been carried on in the wards: Chair caning, cardboard construction work, woodwork, block printing, rush seating, brush making, book binding, modeling, rug making, stenciling, mop making, designing post cards, plasticine modeling, drawing, leather work, hand knitting, rake knitting, frame knitting, machine knitting, weaving, basketry, bead work, making colonial mats, netting, cord work, crocheting, and embroidery.

The curative results of the work are:

1. Palliative. Bed patients who have been recovering from serious illness and operations are kept cheerful and

little more of them. So implanted in our minds had the in good spirits. The work prevents them from dwelling on their disabilities, decreases homesickness and fretting over petty annoyances, and keeps their thoughts in healthy channels.

Among convalescents who are still unable to leave the wards, occupational work decreases the amount of card-playing, discourages idleness, and develops a desire for useful forms of work.

2. Remedial. In numerous cases the ward occupation has given patients dexterity in the use of fingers, wrists, and shoulders that have been stiffened or paralyzed. Frequently in arm cases the patient, through ward occupational work, has acquired greater skill in the use of the remaining arm. In mental cases, the work has a tranquillizing effect by breaking up wrong associations, preventing depression and inducing correct habits of thought. In cases of dementia, the occupational work keeps the patients' minds more continuously on one subject than is possible if they have not this stimulus to control their attention. The work also acts as a safety valve and renders the recurrence of attacks less likely.

To train the aides adequately for their work, a school for reconstruction aides was started at this post. It was postponed for a time due to the influenza epidemic, but finally started as soon as this became less serious. The course of training consisted of practical work with the patients under the supervision of experienced aides, and of lectures of both a general and professional nature. The school was discontinued shortly after the signing of the armistice.

Psychological examinations and records of personal, social, educational, and vocational history, furnish guidance in assigning the patient to appropriate educational work, and in making special adjustments in assignments to attain particular curative or functional results, as well as in helping to make a judicious selection of vocation.

Studies of the most economical and successful methods of learning, qualitative mental analyses, studies of special mental abilities and disabilities, the diagnosis and correction of cases of unsatisfactory progress in educational work, detailed examination of learning to write with the left hand and of learning typewriting—all these have centered around problems of learning.

The measurements of the amplitude of voluntary movements serve the two-fold purpose of encouraging and inspiring the patient by demonstrating to him in objective fashion that he is really improving, and of informing the surgeon and physiotherapist regarding the rate and locus of improvement.

No single factor exerts a more powerful influence upon the patient's convalescence and subsequent rehabilitation than the mental attitude of the patient himself. The patient who has abandoned hope and who indulges in self-commiseration and gloomy forebodings has reached a condition which thwarts the best efforts of the surgeon and the educator. Lethargy and hospitalization are the inevitable results, and experience in the military hospitals of our allies has shown that, so long as despondency, pessimism, and instability persist, the case is utterly hopeless. On the other hand, a cheerful optimism on the part of the patient, a spirit of self-reliance, and a determination to cooperate are so vitally important as to be indispensable.

That the various types of occupational activity and curative courses have had significant therapeutic value in many particular cases is apparent to those in close touch with the details of the work. This has been made possible through the hearty cooperation of the administrative departments and the surgical and medical services of the hospital.

It is also evident, at the close of our first year, that a new and important approach to educational procedure in this country has been initiated by all who contributed either directly or indirectly to the reconstruction of disabled soldiers in this hospital. The hospital has served as a training school, a demonstration laboratory, and an experimental workshop for a number of officers and enlisted men and women who have gone to other hospitals and convalescent camps to initiate, assist in, or direct similar work.

It is to be noted with satisfaction that a number of patients have taken courses of training through several weeks and have qualified for better positions than they held before entering the service.

We are now formulating our problems and methods in such a manner that the results of our experience may be carried into permanent and civilian hospitals during the reconstruction period, which will continue for several years. A detailed scientific monograph on the functional restoration of partially ankylosed joints by means of occupational therapy is now in press, and other studies will follow.

* * * *

LEGISLATION FOR THE INDUSTRIALLY DISABLED

A Bill Which Has No Opponents—Physicians, Manufacturers and Labor United in Its Support

By ELIZABETH UPHAM, Advisor in Occupational Therapy, Milwaukee-Downer College, Milwaukee

Not very many years ago a walk through the streets of certain Italian cities would have raised a question in the mind of a visitor, "Where do they come from, these cripples?" Emerson, visiting Naples in 1833, put down in his journal, "You cannot go five yards in any direction without seeing saddest objects and hearing the most piteous wailings. Instead of the gayest of cities, you seem to walk in the wards of a hospital. Even Charity herself is glad to take a walk in the Villa Reale, and extricate herself from beggars for half an hour." They besieged the passerby at half the corners, with repellant, mutilated faces, or stumps of arms and legs exposed to plead with the humane. Some were blind, and others had such ingenious deformities as neither industry, disease, nor war could originate. The answer was that some of these men were the victims of that state of mind that recognized beggary as a legitimate, easeful, and desirable occupation, and that their ignorant but providently-minded parents had mutilated them when babies so that they might be more successful in this calling.

The war, with the dawning conception of the usefulness of every human being in some occupation, be he whole or damaged, is transforming the cripples of Italy. At the present, Italy is one of the foremost countries in the work of rehabilitation. When the war came, she turned to the scientific restoration of the victims of its violence, and to the careful training and replacing of them in productive occupations. Her doctors and her industrial specialists have contributed as much as those of any country to the cause of reclaiming the disabled. It is safe to predict that instruction in the art of mendicancy will not have a place in her future courses of vocational preparation.

This change of attitude in Italy has not been more swift and complete than the revision of our own conception of the cripple. If we did not create cripples for the purpose of beggary, we at least let them know that we expected

limitations of the cripple become that the first reaction of a disabled American soldier when he found he was permanently maimed was to say, "I hope the lead pencil business is good in Boston." We looked upon every cripple as a potential shoestring seller, pencil vender, or beggar unredeemed. Workmen ignored his economic existence. One able-bodied laborer in Chicago, after searching without success for some casual work to tide him over a penniless time, asked for the dismissal of a cripple who was doing janitor work in the office of the Bureau of Charities, so that he could have the job. When asked what the lame man could do when dismissed, he replied, "He can go to some institution." It seemed to him that work was for the strong, and that dependency was only part of the cripple's lot.

The experience with the maimed in war has given us the realization that in the case of all disabled men "it is not what is gone, but what is left that matters." If the spirit of the cripple can be raised above his handicap and he can be given a chance at an occupation in which his disability is a minor hindrance, he may become a useful member of his community. We are beginning to see that in our waste of human life and our limited views of the possibilities of the crippled we are as reckless of our human resources as we once were of our natural resources when we wasted paper, rubber, and wood. The annual loss to the country through this neglect of human resources dwarfs the figures of waste in natural resources.

With awakened consciousness of economic loss and social wrong, the country is turning from the problem of retraining the disabled soldiers and sailors to the consideration of providing reeducation for the industrially disabled.

The United States had cause to be proud of the Smith-Sears bill passed by Congress last year, which gave training to every disabled soldier; but there is reason to be more proud of the Smith-Bankhead bill now before Congress, for it is this latter bill which is to give the chance to the men disabled in industry. It provides that the Federal Board for Vocational Education, which is charged with the reeducation of the disabled soldiers, will be the administrator of reeducation for these victims of the industrial army. The great machine which was set in motion to restore to usefulness the disabled in war, will be turned to the greater end of reinstating industrial workers in productive occupations.

When we consider the relative numbers of men who meet disability in war and in industry, we cannot doubt that industrial rehabilitation is the greater end. The figures furnished by the United States Bureau of Labor Statistics indicate that in one year accidents alone disabled over eight times as many as the total number of casualties among our troops in Europe. This does not include the numbers incapacitated by industrial disease. According to the latest figures, between one hundred and two hundred soldiers have been blinded by the war, whereas there are in the United States at present 15,000 cases of blindness resulting from industrial accident.

Outside of the significance lent to the measure by the great numbers who would benefit by it, there is the consideration that it is a permanent thing, one which is not confined to a group of men such as the discharged soldiers of the present war, but which will offer lasting benefits to the victims of industry.

It is a sign of the dawning era of reconstruction that labor and capital join to support this great economic and humanitarian measure. At the hearings of the new bill, representatives of varied interests endorsed it as valuable both in helping injured workers and saving society the expense of supporting them. Among the organizations to endorse the bill are included the National Association of Manufacturers and the American Federation of Labor.

Mr. Arthur E. Holder, representative of labor on the Federal Board for Vocational Education, says:

"I tell you, gentlemen, that the statesman who can raise and rescue his brother who has fallen by the wayside through an accident in industry or in social relations and place him upon his feet as an independent, self-reliant American citizen is making an investment of public funds the outcome of which no human being is able to see."

Another champion of labor, Mr. Samuel Gompers, president of the American Federation of Labor, said:

"I hold, as I think every humanity-loving man holds, that, believing in conservation, there is nothing quite so valuable to our country and to the world as the conservation of human life and human endeavor. Industry is, as it has been conducted, most destructive of human life and human endeavor. There are accidents resulting in death and loss of limbs which are preventable in industry. There are some of them which seem to be unpreventable. Even with all of the precautions which are devised, there are some accidents which still occur, and there are some injuries which still occur.

"Now, as a result of those accidents or injuries which occur and are preventable and should be reduced to the minimum, and the accidents of industry which seem to be preventable up to the present time generally, the men and women of labor are injured and have been thrown upon the industrial scrap-heap, in so far as society is concerned, and in so far as any human institution is concerned. The war, if it has not taught us anything else . . . . has taught us the value of the rehabilitation of the wounded soldier, and that if there be any part of his body left which is available for service to society and for benefit to himself, it should be made useful."

Mr. F. W. Keough of the National Association of Manufacturers also heartily endorsed the measure. He said:

"Now that loss (from accidents) goes on year after year, and this matter of rehabilitation commends itself to employers, manufacturers, and business men generally as a business proposition, entirely apart from the humane consideration . . . . manufacturers have been tremendously interested in the conservation of human life, and the conservation of human energy, as it relates to industry."

Dr. Harry E. Mock, president of the American Association of Industrial Physicians and Surgeons, said:

"Real rehabilitation . . . . is going to be accomplished by injecting something into the industries of this country which neither legislation nor any similar agency can inject, that is, a humanitarian viewpoint combined with good business."

Dr. C. A. Prosser, director of the Federal Board for Vocational Education, said in reference to the bill:

"I believe it is the only far-sighted, economic policy for the government, the state, and the man. . . . Someone must pay the cost of their idleness and dependency. Instead of paying this cost from taxes or soliciting it by the degrading channels of charity, rehabilitation costs less and places the man upon his feet. Moreover, he provides for his own family. I urge this, therefore, first as an economic measure, and second, as a humanitarian one."

The enthusiasm and the wide interest which supported this bill at the hearings before a joint committee on labor and education are a happy augury for its adoption. The lack of opposition, as Mr. Holder points out, is the only appalling feature. Mr. Holder had jubilantly enumerated to Senator Dolliver, who was to introduce the first vocational bill into the United States Senate, all the educational institutions, labor organizations, and manufacturers' associations which had declared themselves in its favor. "Who is against it?" demanded the senator.

"Why," said Mr. Holder, "there's no one against it."

"Get somebody else to handle it!" cried the senator. "I can't handle a bill that doesn't have to be fought for."

HEALTH AND MODERN INDUSTRY

Conducted by BARROW B. LYONS
Superintendent Delaware Hospital. Wilmington, Del.

"The Three Fears," drawn by Cesare for the American Association for Labor Legislation, and here reprinted through their courtesy.

COST OF HEALTH SUPERVISION IN INDUSTRY*

A Summary of the Experience of Ninety-nine Industrial Concerns Employing Half a Million People

By MAGNUS W. ALEXANDER, Managing Director of the National Industrial Conference Board

The first compilation of the cost of health supervision in industry which I made for the Conference Board of Physicians in Industrial Practice was published in October, 1916, and comprised data, mostly for 1915, submitted by forty-one industrial plants with an aggregate average of 223,416 employees. The average annual health supervision cost, as then reported, was $1.88 per person. The lowest cost ($0.53) was reported by a metal trades plant employing 385 persons, the highest ($7.79) by a paint factory employing 2,448. Some of the reports, however, were approximations only, based on incomplete records or on a short experience while the work was in its infancy. A new compilation was therefore decided on to be based on longer, more varied and more mature experience.

The summary of the later compilation is given in the accompanying table. It presents data for the year 1916, as reported by ninety-nine industrial plants located in fifteen states. The total average number of employees represented was 495,544; the average number per plant was 5,005, the maximum 37,107, the minimum 141.

While the average cost per person, as indicated in the summary, is $2.50, it is not representative, as the total cost on which the average is based includes that of four plants which render unusual service, giving both medical and surgical attention to their employees at the plant and in their homes as well, besides assuming the medical care of employees' families. Omitting these four plants from consideration, the average cost for the 479,634 employees in the other 95 plants was $2.21.

Where the average cost appears to be unusually high or low, the reason is in many cases indicated in the table itself. The size and character of the medical staff is usually the determining factor. In some cases, the cost is influenced greatly by the number of injuries treated in private or public hospitals, in others by the amount of care given to all injuries, serious or slight, or by extension of the service to include physical examination of all employees, treatment of sickness of employees at the plant and at home, and even by medical care of employees' families, or by a combination of these features.

The cost is also influenced, of course, by the kind of work done in particular plants and by the character of the industry. Shops doing very light work, with little hazard exposure, naturally have fewer and less serious accidents than those doing heavy work, particularly where there is much overhead handling of materials, or where many men work in elevated positions, as in the power and light industry. The cost in plants manufacturing chemicals and paints reflects the great care exercised to safeguard the health of workers in those industries.

A total of 3,165,114 cases was reported, an average of more than six cases per person employed, at an average cost of $0.39 per case. The number of cases reported, however, does not include all of the service rendered. In many plants, no record is kept of slight injuries, of injuries redressed, of medical cases treated, of home visits made, or of physical examinations. In others, even the most trivial cases are counted. Furthermore, as "cases" are so varied in gravity and in the time required for treatment, any comparisons of costs per case are not of much value.

The "Total Medical and Surgical Cost" includes salaries of physicians and nurses, cost of outside medical and surgical service and cost of medical and surgical supplies, whether or not paid for by insurance companies as a part of the insurance contract; it excludes compensation for injuries, overhead expenses, and wages paid to employees while off duty to have their injuries treated.

The aim of this compilation is to inform employers of the actual cost of health supervision of employees in different industries. To this end, the data were secured from plants engaged in many industries, in light, medium, and heavy work, in comparatively safe as well as hazardous operations, and in shops of various sizes and character, located in various parts of the United States. Some are situated in cities where hospitals and specialists are available, some in small places where such service can be secured only with difficulty.

The significance of these data, from a general viewpoint, is that such a large amount of medical and surgical service is possible at an average of only $2.21 per employee per year.

Convincing proof of the economic value of health supervision in industry is afforded by the fact that, when collecting the data contained in this report, it was found that no employer had abandoned the health supervision activi-

*These data were compiled for the Conference Board of Physicians in Industrial Practice.

ties established in his plant. On the contrary, the prevailing tendency has been to invest even more money in extending the service.

COST OF HEALTH SUPERVISION IN VARIOUS INDUSTRIES

INDUSTRY	Number of Establishments Represented.	Total Average Number of Employees Supervised	Total Cases of all Kinds.	Total Medical and Surgical Cost.	Average Annual Cost of Medical and Surgical Supervision per Employee.
Metal Trades	47	294,646	1,988,991	$541,771	$1.84
Rolling Mills	7	49,317	358,574	137,047	2.78
Smelting and Refining	1	1,270	2,832	6,932	5.46
Light and Power.	7	24,921	49,046	92,601	3.72
Transportation ..	5	35,795	81,591	69,633	1.95
Chemicals	6	10,572	78,744	34,797	3.29
Food	5	13,650	69,565	39,875	2.92
Rubber	5	27,462	234,069	76,089	2.77
Textiles	4	8,939	67,380	24,177	2.70
Paint	2	4,023	10,255	29,635	7.37
Leather	2	3,026	9,440	6,102	2.02
Publishing	2	3,358	6,742	3,473	1.03
Coal Mining	1	2,454	2,842	4,637	1.89
Gold Mining	1	2,500	62,126	35,590	14.24*
Coal and Iron Mining	1	11,600	131,898	130,000	11.82*
Miscellaneous ...	3	2,611	11,019	6,126	2.35
	99	495,544	3,165,114	$1,238,485	$2.50†

*Cost includes treatment for sickness of employees and their families when requested.

†The average annual cost per employee, excluding plants for which the cost includes sickness treatment of employees and their families at home, was $2.21.

* * * *

SAVINGS TO A MANUFACTURING CONCERN IN A PLANT DISPENSARY

How a Large Manufacturing Concern Profits in More Ways than One by Caring for the Health of its Employees

By J. T. SELLER, Secretary Greenfield Tap and Die Corporation, Greenfield, Mass.

For the past nine months we have employed a trained industrial nurse and have maintained a fully equipped emergency room at our four largest plants, each of these rooms being under the supervision of an assistant to the nurse. The assistants are young women whom we have chosen from our plants as showing some adaptability for the work and who have been trained by the nurse until they have become thoroughly competent to handle all minor ailments and injuries. At the three small plants of the corporation we maintain simply the full first-aid equipment.

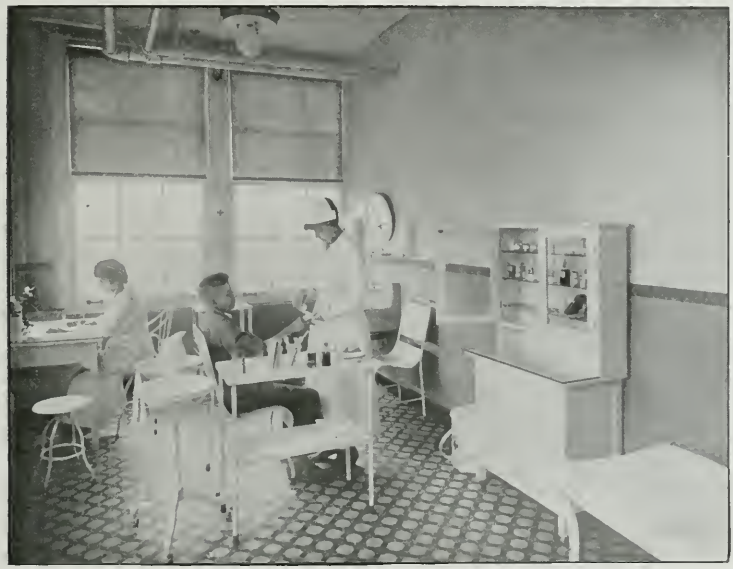
We have found this service of tremendous value in cutting down absenteeism owing to the lessening of accidents and the treatment of minor ailments that previously resulted in absences from work. Our nurse's report shows that in the nine months there were 125 less accidents which caused lost time than there were in the previous nine months. Figuring the time loss on the average disability accident, we have found that there is an actual saving to the corporation of productive value to the amount of $1750.

In addition to this important figure, our records show that there were 520 cases of severe indigestion and headaches treated in the emergency rooms that otherwise would have involved the loss of one-half day each—that is to say, the operator would probably have been incapacitated and obliged to leave work for that length of time. The estimated saving to the corporation in production on this item alone may be conservatively figured at $2500.

In addition to this work, our employment department investigated 1238 cases of absent help, and our nurse made 80 visits to the homes of sick employees. These visits did not include those which were made during the month of epidemic influenza, when our nurse gave practically her entire time to calling on employees who were stricken to bring relief to their families and advise them on combating the disease.

The result of the absent help investigation cannot be measured, but it is fair to state that a considerable reduction in absenteeism is brought about through the fact that the employee knows he is looked up when absent from the fact that those who prove to be ill immediately receive proper medical care. Production is materially increased, since the works manager of each plant is given definite information as to how soon an operative will probably return to work, thus giving him an opportunity to make the necessary substitution on his or her machine.

We believe that the installation of emergency rooms under the supervision of a trained industrial nurse not only has paid in dollars and cents, but the service rendered has been greatly appreciated by our help, thereby contributing a great deal to the good will of the employees toward the management and to the reduction of labor turnover.



Bandaging a maimed finger in the dispensary of the Greenfield Tap and Die Corporation.

INDUSTRIAL HEALTH PROTECTION AT THE WESTERN ELECTRIC COMPANY

Company Pays Sick Benefit Insurance for Employees of Two Years' Standing—Regular Physical Examinations Are Part of the Service—Medical Department and Emergency Hospital Complete in Personnel and Equipment

By MARGARET J. ROBINSON, R.N., Field Editor of THE MODERN HOSPITAL

The plant of the Western Electric Company at Hawthorne, Ill., which employs twenty-five thousand industrial and clerical workers, both men and women, has worked out a system of health protection and health conservation under the supervision of its medical department which has brought results in the conservation of time and labor, as its statistics show. These results have been obtained, not by the reduction of the workman's income, as is done in the much-vaunted German system of health insurance, but is paid for out of the profits of the plant.

In the Western Electric plant, a worker's physical condition is considered one of the company's assets and is protected and conserved accordingly. The emergency hospital and physical examination department of the plant is exceptionally well constructed, equipped, and administered. In fact, it may be considered as a model which would be ideal for any large industrial plant. The plant of the Western Electric is model throughout, consisting, as it does, of well-constructed, fireproof buildings, wide, clean streets between, and well-kept green grass and flower beds wherever they will add to the beauty and comfort of the place. The company is doing a great amount of government work, and the whole plant is so thoroughly policed and guarded that it is almost as difficult to get through the gates as through the gates of heaven. A chance visitor must give his pedigree to obtain a pass and show this pass at every turn of the road in order to get anywhere.[1]

The medical department building is a one-story building. It has a lawn and stately rows of tulips bordering the pathway to the door. The interior of the building is beautifully white throughout. No expense was spared by

[1]This was written before the signing of the armistice.—Editor.

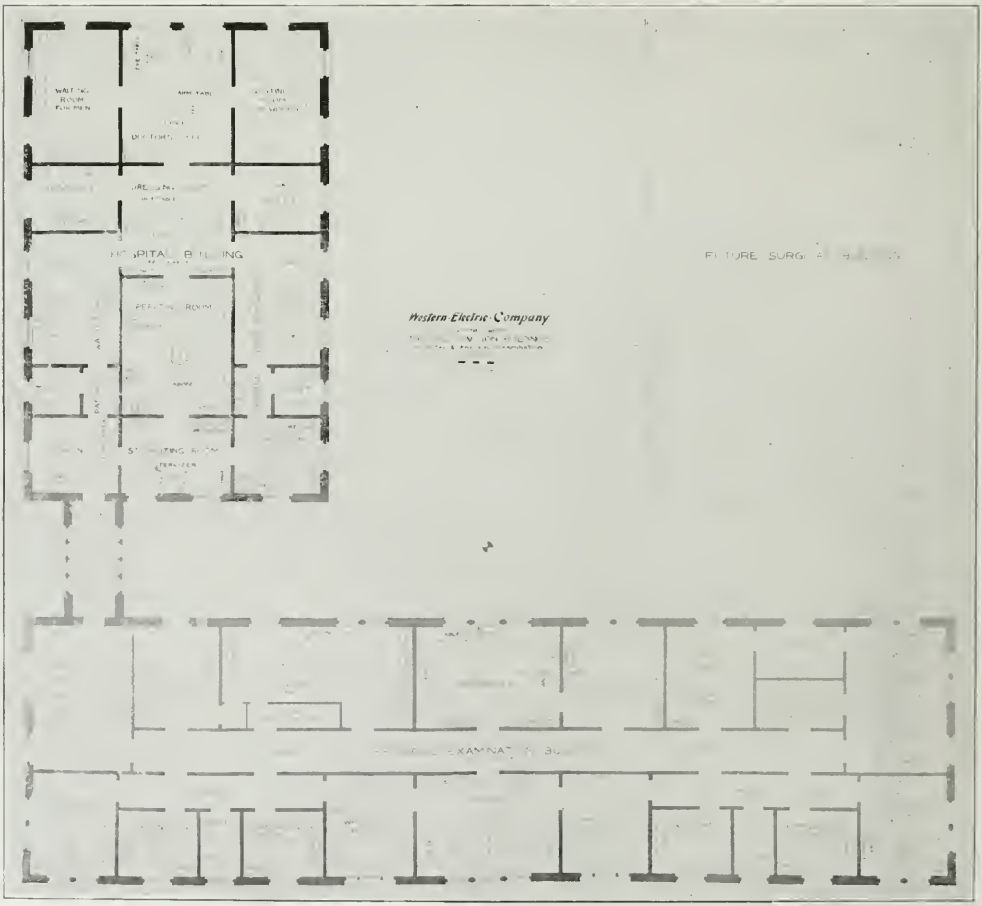


Fig. 1.—Floor plan showing the physical examination building, the hospital building, and the site of the future surgical building of the Western Electric Company.

the Western Electric Company in the furnishings and conveniences of the building to make it complete for the service it was to render to the employees of the company. Only first aid, physical examinations, and emergency operations are done in the hospital building. There are only six beds, and patients needing longer than forty-eight hours' care are removed to general hospitals. Besides the surgeon in charge, Dr. William Lucas, there are eight salaried interns, two women laboratory technicians and fifteen graduate nurses employed.

The first aid room is very complete, and its immaculate furnishings are arranged to care for any emergency that might arise in the plant. The laboratories are provided with everything needed for complete physical examination tests. The radiographic laboratories are unusual; the furnishings are carried out in the same immaculate white. The diagnostic frames, the tube tables and carriage, and all the electric equipment have been perfected to the highest degree of convenience and technic by the expert electricians of the plant. The overhead wiring system is much more accurate and perfect in its function than would be possible for any average hospital to have because of the time and skilled electrical labor it would need to perfect it.

In the offices where the files of the physical examination of the twenty-five thousand employees are made and kept, all is immaculate white too, even the typewriting machines and the girls who operate them.

Every employee is given a thorough physical examination when he enters the plant, and another each time he is reported sick for more than four days. All examinations and dressings except emergencies are scheduled for the morning hours.

Social service, in the ordinary sense of the term, is not given to the employees; no investigators visit the homes of the employees, as the company believes that each man's house is his castle and that they have no right to intrude on his privacy. On the other hand, any social help a man may need for himself or his family is given if he requests it.

The employees are not taxed for the sick benefit insurance. All are entitled to it after two years with the company. The weekly payments increase with the year of service. All injured employees receive full pay when laid off; all cases of illness receive full pay for five weeks and half pay thereafter. The benefit plan is under state compensation. Very few cases ever need adjustment by liability insurance. Some employees are received for work conditionally and put under observation. Everything is done by the medical department to make them physically fit and to keep them so. All cases under treatment must report for treatment and observation until discharged by the medical department.

Fig. 2.—Office of the physical examination department of the Western Electric Company. Even the offices of the hospital department of this concern carry out the ideal of immaculate equipment.

Fig. 3.—The radiographic laboratory of the Western Electric Company. The expert electricians of the company are responsible for the high degree of excellence which it has attained in the diagnostic frames, the tube tables and carriages, and the overhead wiring system.

The medical department makes regular inspections through the plant, and watches the occupational fitness of all employees. Recommendations for changes by this department are carried out by other departments without question, and no employee is left where the medical department believes he is endangering his physical welfare. The Western Electric Company places a humane and a market value on the health of its employees and spares no expense to protect the individual.

* * * *

Prize for Thesis on Industrial Medicine and Surgery

The American Association of Industrial Physicians and Surgeons offers a prize of $100 for the best thesis on any subject related to industrial medicine and surgery by any undergraduate student of the United States. The thesis must not contain more than five thousand words.

All theses must be in the hands of the secretary of the association, Dr. Francis D. Patterson, Department of Labor and Industry, Third and North Streets, Harrisburg, Pa., by May 10, 1919.

* * * *

An Advocate of Health Welfare

In response to a letter recently sent to the International Harvester Company the following reply was received:

"It is impossible to answer a number of the questions which you have asked, except in very general terms.

"The question of increasing output, reducing cost of operation, etc., are things on which it is very hard to compile statistics.

"In a general way, there has been great improvement in many of the annoyances incident to industry on account of loss of time, labor-turnover, etc., and it is impossible to say just how much health work has been responsible for this change, but it is decidedly the opinion of those who have had the work under their supervision that there has been a marked improvement."

QUERIES AND ANSWERS

Exterminating Roaches

To the Editor of THE MODERN HOSPITAL:

Can you make some suggestion as to the best means of exterminating roaches in a hospital? Various sprays and powders have been used with very unsatisfactory results.

HOSPITAL SUPERINTENDENT.

Roaches are particularly hard to get rid of because of their instinct for concealment and their ability to detect the presence of poisons in food. The use of sodium fluoride, however, has been found effective in numerous practical tests in lunch rooms, bakeries, milk-bottle exchanges, etc., and is recommended by the United States Department of Agriculture. It can be used pure or diluted one-half with some inert substance, such as powdered gypsum or flour. With a dust gun or blower it is to be thoroughly dusted over the shelves, tables, floors, and the runways and hiding places of the roaches. The insects are driven from their retreats, rush blindly about in great apparent discomfort, and die within a few hours. The dead or paralyzed roaches can then be swept up and burned, and extermination is effected within twenty-four hours.

Whatever is done, however, to exterminate this pest, no encouragement should be offered in the line of accessible food, or the fight will be unending. All material that roaches will eat—and, it must be remembered, they will eat almost anything—should be kept in tins or insect-proof boxes with properly adjusted and tightly fitting covers. For foods that require ventilation the covers may be made of wire gauze with moderately fine mesh. All food scraps should be deposited in metal-covered garbage cans immediately after meals.

Organization of Small-Town Hospital

To the Editor of THE MODERN HOSPITAL:

What is best form of organization for a hospital in a town of twenty-five thousand? Our new hospital will have a capacity of fifty beds, and we are planning a new organization, since the old has not been satisfactory.

The hospital has been under the management of one church although no preference has been given to it in authority. People of various denominations have held executive positions, and efficiency comes first in making appointments to our board of control or our management.

At present the property is held by trustees of the church. The chairman of the managing board is the rector of the church by virtue of his office, and some of this board are members of other churches. The board, however, does not actually operate the hospital. This is done by the woman's board, which elects its own members, makes its own laws, and has in its membership women from all churches. This advisory board collects and disburses all money and hires and fires all help. The board of managers acts as trustees of the endowment fund.

Will you let me know what you believe to be the best organization for this hospital, and also what experience has shown in the administration of boards of hospitals by women managers in direct control?

PRESIDENT OF A BOARD IN THE MISSISSIPPI VALLEY.

According to experience, the management of hospitals by women's boards has not been satisfactory. In fact, the same thing may be said of boards composed of men if these boards attempt to exercise executive control. Such boards have been useful as auxiliaries which have made money and furnished supplies, but they have stood in the way of progress where they have had control.

You will be carrying out the function of a board of trustees as it is considered standard today if you have a non-sectarian board representing the different elements of good in your community to act as advisors and support to your superintendent. This board should not be large, not more than six or eight at the most. The rest of your members may be formed into an auxiliary to raise money and to furnish the things needed.

Your executive, *responsible only to the central organization,* should be an experienced superintendent. For an institution the size of yours, the best choice would be a capable woman who is a graduate registered nurse, and she should be given entire charge of the actual running machinery in the hospital without outside interference.

Results have proved this method of hospital management to be the most efficient. The older methods where committees actually attempted management should go to the scrap heap, because experience has shown that they have brought friction.

Transfusion Agreement for Hospitals

To the Editor of THE MODERN HOSPITAL:

The process of transfusing human blood is becoming quite common. Despite all precautions there is a possibility that the process may result unexpectedly in injury to the recipient. Is there any way in which hospitals may protect themselves so that they may be released from any damages which may result?

SUPERINTENDENT OF AN EASTERN HOSPITAL.

The administrative process in connection with transfusion has not been generally standardized. It is desirable, however, that the hospitals protect themselves in some manner. The following forms were prepared by one of the larger hospitals as formal releases to be signed in advance of the operation by the recipient or the representative of the recipient, and the donor.

TRANSFUSION AGREEMENT
.....HOSPITAL
(FORM FOR RECIPIENT)

I, ..., request..... Hospital to perform or cause to be performed by such surgeons, physicians, nurses, and others as it may designate for the purpose, the operation of transfusion of blood upon myself as recipient from any donor or donors thereof that the hospital may designate, hereby assuming full risk of said operation from whatever cause arising, and releasing the hospital and those whom it may have designated, and its and their successors, heirs, and legal representatives from any and all damages which may result to me as a direct or indirect result of said operation.

(Signed).....
....191....

TRANSFUSION AGREEMENT
.....HOSPITAL
(FORM FOR REPRESENTATIVE)

I, ..., the .....[relationship] ..... of.....[patient]....., representing the latter whose condition does not enable him to act for himself, hereby request .....Hospital to perform or cause to be performed with such donor and by such surgeons, physicians, nurses, and others it may designate for the purpose, the operation of transfusion of blood upon..... [patient].....as recipient, hereby assuming for myself and for the said recipient the full risk of said operation from whatever cause arising, and releasing the hospital and those whom it may have designated, and its and their successors, heirs, and legal representatives from any and all damages which may result to the said recipient as a direct or indirect result of said operation.

(Signed).....
....191....

TRANSFUSION AGREEMENT
.....HOSPITAL
(FORM FOR DONOR)

I, ..., agree to submit to the operation of transfusion of blood as the donor to any recipient, and, in consideration of the payment of $....., the receipt whereof is hereby acknowledged, do hereby release.....Hospital and such surgeons, physicians, nurses, and others as it may designate, and their successors, heirs, and legal representatives from any and all damages which may result to me as a direct or indirect result of said operation, hereby assuming all risks thereof from whatever cause arising.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this.....day of.....191.....

..... (Seal)
.....
.....

DEPARTMENT OF NURSING

Conducted by ANNIE W. GOODRICH, Dean Army School of Nursing and CAROLYN E. GRAY, R.N.

Please address items of news and inquiries regarding Department of Nursing to CAROLYN E. GRAY, R.N., Principal, City Hospital School of Nursing, Blackwells Island New York.

THE PRESENT STATUS OF THE EIGHT-HOUR DAY FOR PUPIL NURSES

Schools Which Have Tried the System Report on Its Advantages and Disadvantages—Nurses Almost Universally Healthier and Happier Under Eight-Hour Schedule

A former article on the subject of shorter hours for student nurses[1] stated that there were ten schools in the United States, outside of California, and the Army School units in which the eight-hour day was an established fact. Many inquiries regarding these schools have led to an endeavor to corroborate this statement. A questionnaire has been submitted to each school mentioned in Miss Nutting's pamphlet, "Educational Status of Nursing," as maintaining a working day of eight hours or less. Ninety letters were sent out, and replies came from fifty-eight schools. Since we are all glad to publish our good deeds, it may be safely assumed that the schools from which no response was received are not working on an eight-hour schedule.

To summarize, briefly, the following discoveries were made:

1. Six schools reported having a strict eight-hour schedule.
2. Ten have an eight-hour day, with a night ranging from nine to fourteen hours.
3. Four have a "modified" eight-hour system.
4. Four have had an eight-hour system but have "gone back."
5. Thirteen are "interested," "would like information," or are "about to introduce an eight-hour system."
6. Seven say it would be "impossible" to give shorter hours.
7. Fourteen are frankly uninterested in the subject.

There were references to ten schools supposedly run on the eight-hour basis. This study is quite incomplete but furnishes a fair estimate, I believe, of the situation in our schools. One point which impresses itself on those who have watched the movement is the ease with which the eight-hour system has been introduced in those schools and communities where public opinion was back of the movement. Of the six schools running on the strict eight-hour plan, three were established on that basis and have never felt the need of going back.

Again, where we find schools running very successfully with an eight-hour day and a longer night, it would seem that only tradition keeps them from changing to the eight-hour night also. California, after five years under the law which obliged hospitals to shorten the pupils' working day, would not wish to go back. The Army School adopted the shorter working day as a basic principle, and those who have helped to organize the units of this school are enthusiastic advocates of the principle.

I have attempted to analyze the replies to the questionnaire submitted and will state some of the facts obtained. We will be extremely grateful for additional information on this subject and will publish any further data received.

The six schools reporting the strict eight-hour day are (1) Farrand Training School of Harper Hospital, Detroit, Mich., which has been working on this basis for nearly thirty years; (2) the Lakeside Hospital Training School, Cleveland, Ohio, organized on the eight-hour plan; (3) the Presbyterian Hospital, Chicago; (4) the Niagara Falls Memorial Hospital, Niagara Falls, N. Y.; (5) the Maine General Hospital, Portland, Me., and (6) the City Hospital School of Nursing, Blackwells Island, N. Y.

The hours are regulated in these schools as shown in the following paragraphs. In the first school the senior and assistant nurses work eight continuous hours, while the junior nurses have a "split-time" schedule, as follows:

Senior and Assistant	Junior Nurses
7 a. m. to 3 p. m.	7 a. m. to 11 a. m.—3 p. m. to 7 p. m.
3 p. m. to 11 p. m.	7 a. m. to 12 a. m.—4 p. m. to 7 p. m.
11 p. m. to 7 a. m.	7 a. m. to 1 p. m.—5 p. m. to 7 p. m.

Graduate nurses are on duty ten hours daily and are in charge of all departments. There is always a supervisor in charge of two or more floors. The night supervisor and her assistant are on duty from 7 p. m. to 7 a. m. They have one-half night off duty each week and a whole night each month.

The second school was organized on the eight-hour plan and has never changed. The schedule of hours is as follows:

1. Day nurses report at 7 a. m. and are off duty three hours daily, plus one hour for lunch and one for dinner.
2. A group of nurses come on duty at 1 p. m. and work until 5 p. m., are off duty until 7 p. m. and then work until 11 p. m.
3. Night nurses are on duty from 11 p. m. to 7 a. m. having their night supper at 10:30 p. m. before going on duty.

The third school has three relays of nurses. The first relay works from 7 a. m. to 7 p. m. with "hours off." Some of the nurses are off duty from 9:30 a. m. to 1 p. m., some from 1 p. m. to 4:30 p. m., and others from 3:30 p. m. to 7 p. m. The second relay works from 3 p. m. to 11 p. m. The third relay works from 11 p. m. to 7 a. m. The night supper is served from 10:30 p. m. to 11:30 p. m. The average is one nurse to every two patients.

In the fourth school the eight-hour plan has been in force two years. It has been most practical and satisfactory. The nurses have been happier and healthier, and the patients have received better care. The three-shift plan was preferred, giving longer, uninterrupted periods for rest, recreation, and study. The proportion of nurses to patients is about one to three, and the increase in order to make the change was estimated at 15 percent.

The hours of duty are: 7 a. m. to 3:30 p. m.; 3 p. m. to 11:30 p. m.; 11 p. m. to 7 a. m. One-half hour is allowed for meals. The night supper is served at 10:30 p. m. The duties of each nurse are carefully outlined. Ward baths are given by the 3 to 11:30 p. m. nurses between 7 and 9 p. m. Most of the cleaning is done by the 11 p. m. to 7 a. m. nurses between 2 and 4 a. m., when the work is lightest, leaving the floor in an orderly condition for the day nurses.

The fifth school also has three relays. The greater num-

1. Gray, Carolyn E.: A Square Deal for the Pupil Nurse, THE MODERN HOSPITAL, Feb., 1919, XII, 141.

ber are the day nurses who are on duty from 7 a. m. to 3 p. m. with a "broken-time" nurse in each ward whose hours are 8 a. m. to 12 a. m. and 3 p. m. to 7 p. m. Another nurse is on duty from 3 p. m. to 11 p. m. If the ward is heavy, there are two for this period. A night nurse comes on at 11 p. m. and remains until 7 a. m.

The nurses average about one to two patients. "The disadvantages are: (1) too little time for class work and (2) the tendency of the pupil nurses to spend too much time in recreation. The advantages are: (1) the small proportion of nurses off duty on account of illness and (2) no bother with afternoons or Sunday relief."

In the sixth school the eight-hour day was started in October, 1918, with a group of twenty-five students who entered at that time and who had already had their preliminary work outside the hospital. These students were put on eight-hour duty because of epidemic conditions. It had been planned to give them not more than six hours' duty for the first month, at least.

"In December a second group of twenty students, who had been in the regular probation class and working not more than five hours daily, was also put on eight-hour duty.

"The period from October to December had been particularly difficult. January first it was found possible to put the whole school on an eight-hour schedule. The day nurses had been working nine hours daily, so an additional hour was all that was necessary for them. The night duty was our point of attack, since the night nurses had always worked twelve hours.

"A group of junior nurses was put on duty to cover the time from 2 p. m. to 11 p. m. These nurses have an hour off for supper, either 5 p. m. to 6 p. m., or 6 p. m. to 7 p. m. A third group of nurses reports at 11 p. m. and remains until 7 a. m. The nurses in this group are either seniors or graduates.

"The change meant doubling the number of night nurses, the group on duty from 2 p. m. to 11 p. m. making up for the extra time allowed the day nurses. The schedule stands:

7 a. m. to 7 p. m. (with hours off).
7 a. m. to 4 p. m. (1 hour for dinner).
2 p. m. to 11 p. m. (1 hour for supper).
11 p. m. to 7 a. m. (relieved for midnight supper).

"The second grouping of hours (7 a. m. to 4 p. m., with one hour for dinner) is given to each nurse once a week.

"We did not take away the afternoons off duty and we kept to the custom established many years ago, of allowing each day nurse every other Sunday off duty. This amounts to exactly the same thing as giving each nurse a half day every Sunday. Moreover, we have found it possible to give all nurses, those on the 2 p. m. to 11 p. m., and 11 p. m. to 7 a. m. duty, a whole day off every other week. The day chosen was Saturday, and the 2 p. m. to 11 p. m. group go on duty one week from 7 p. m. to 7 a. m., while the following week, the 11 p. m. to 7 a. m. group are on duty all night. This means that once in two weeks the nurses have a full night of twelve hours, and also a whole day off. We feel that the occasional "long night" is good for their souls, since it tends to make them appreciative of the shorter hours.

"For the day nurses the hours on duty during a week average fifty; for the 2 p. m. to 11 p. m. group, fifty-two hours; and for the 11 p. m. to 7 a. m. group, fifty-four hours. Hence, for the three groups the average number of hours on duty weekly is fifty-two.

"Our graduate nurses are also working on the same schedule. They had given splendid service, and we could not bear to leave them out. The effect has been good. Not one graduate nurse has resigned since the shorter hours went into effect.

"If anything, it has been easier to plan for classes than before. The 2 p. m. to 11 p. m. group have had their class work in the morning, and they have a heavy program. The 11 p. m. to 7 a. m. nurses are in better shape physically for their class work whether it comes in the morning or afternoon. If they get up early for class, they can and do go to bed again after an early supper.

"How long the eight-hour system will last in this particular school is problematical. It is not accident which has given us a sufficient number of students to establish the system. That it is workable we know; and we know, too, that our students are healthier and have more time for rest and recreation. That it is risky to go against tradition we are well aware, and a school which is politically controlled represents a structure built upon sand. We need the underpinning of an aroused public opinion to help us maintain what we have built."

In conclusion, it would seem that the chief point of attack in establishing an eight-hour day is in converting the heads of our schools and those who have the ultimate control. It may be admitted that "fear" is a strong deterrent; but "the blood of the martyrs is the seed of the Church," and it is better to go down struggling for better conditions than go on fairly smoothly, maintaining the worst of our old traditions. If all women in charge of schools stood together on this one point, an eight-hour day could be established almost over night.

If you have a hospital of, say, 200 beds, with ten nurses on night duty, twelve hours a night, ten nurses in addition would enable you to establish the eight-hour night. If your total number of nurses is, say, 100, this would mean a 10 percent increase. In many cases, the change could be made by relieving nurses from much of the hospital drudgery and employing a number of maids equal to the extra number of nurses needed for night duty.

You may find that your nurses seem to have a good deal of time on their hands, but hardly "too much time for recreation." Eight hours each of work, play, and sleep, we have always heard, is a pretty good division of time. It is true that we become better acquainted with our nurses and have a better understanding of their needs when they are not so utterly exhausted by hospital work. We are dealing largely with adolescent girls and are not doing our whole duty to them when we do not help them to spend their off-duty time wisely.

Here should enter the social director. Since many schools admit girls as young as eighteen years, and since adolescence extends to the age of twenty-one, we can not escape the responsibility of planning for the off-duty time of our students. They come to us from the restrictions of home life, at the most formative period of their lives, and have heavy burdens placed upon them. The first night duty has proved to be many a young nurse's "Waterloo," and it is not fair to impose twelve hours' service upon her while she is still so young in years and experience. "No night work for minors" might be a profitable as well as a humane slogan for our schools. If we can not do away with night duty, we can at least shorten the hours. Most of us remember only too vividly the awful strain of the hours between midnight and the first glimmer of day .

We grant that arranging for three relays of nurses, afternoons and Sundays off, is not easy. One must have belief, energy, and enthusiasm. Two shifts means much less work for the executive, and, of course, there are many who still believe that a part of the training of a nurse goes to make her incapable of exhaustion. There are still hospitals which allow twenty-four-hour duty for the spe-

cial nurse, but these can scarcely be said to be abreast of the times.

In the schools that have "gone back," the reason given is that nurses do not like the eight-hour day seven days a week, but prefer their afternoons off-duty, and the extra time on Sunday. This is quite reasonable, and we maintain that, in simple justice, we should give not more than eight hours daily for five days a week, and six hours the sixth and seventh days, which gives a fifty-two-hour week for day nurses. The night nurses should have their lost time made up to them if it is found impossible to arrange for their time off, but where there is a will to plan the hours, the way is usually not entirely impossible.

THE EIGHT-HOUR LAW AND CALIFORNIA TRAINING SCHOOLS*

Passage of Law Results in Cooperation and Extreme Satisfaction of Hospitals—Nurse Enabled to Live a Healthy, Normal Life—An Example for Other States to Follow

The eight-hour day for student nurses in California has been in effect since August 2, 1913, and hence is far removed from the stage of experiment. It has been demonstrated that the eight-hour plan is not only possible, but profitable for the schools.

At first there was a great deal of resentment manifested by hospital and training school officials, physicians, trustees, and even by some nurses themselves. The State Bureau of Labor was responsible for assuming that student nurses might well be placed under the protection of the law because of "long hours of duty which caused the actual exploitation of students in public and private hospitals," and which "had reached notorious proportions, the greatest offenders being hospitals owned by corporations of physicians, or fraternal organizations where increased revenue to the hospital from fees paid by patients for special nursing became a recognized thing. Students almost from their entrance into the school were placed on special duty and, if particularly adapted by their personality, were kept on special duty for the major part of their training. One hospital openly acknowledged that the board of directors counted on a return of at least $1,000 per month from this special nursing."

The immediate reaction on the hospitals of the passage of this law was necessarily very marked. Students had to be removed from special duty and replaced by graduates. About one-third more students had to be admitted, and therefore more accommodations for the housing of the students had to be provided. It was at first a staggering situation for the hospitals and several small institutions were obliged to close their training schools and employ graduate nurses at once. After five years, however, many superintendents who were at first strongly opposed now express satisfaction and unwillingness to go back to the former plan, even should the law be repealed. The superintendent has represented the strategic point in all the adjustments necessary to bring about a smooth working of the law. On her alone has rested the responsibility of administration. This has required ability of no mean order. To move her students at proper times and in proper rotation, to maintain the harmonious working of all services, to keep in mind the patient and the student—the former's welfare and comfort and the latter's education—both in class and at the bedside, has taxed her ability, her foresight, and her leadership to no small degree.

The primary object of the law was in the interest of the health and morale of the students, as under the old system there was little, if any, time for rest, recreation, or study. The students paid a very high tuition for a very one-sided training, and the hospital exacted a heavy toll from these young women. Even the time of illness, often brought on by overwork, was obliged to be made up. The social life of the young student was completely submerged by her duties, and it was rarely that any provision was made for her recreation or entertainment. Under the present system there is time for class work, for study and for recreation. The leisure time, once thought fruitful for mischief, is now in the most progressive schools well looked after. Proper recreation rooms and the direction of wholesome social entertainment are found in the best grade schools. A student has time to live the life of a normal, healthy, and energetic young woman.

Admissions to the schools have increased, and women of good qualifications have not been discouraged by the fact of long hours of duty. The general health index of students has risen and, when the course is completed, they are, as a rule, in better physical condition than when they entered the school.

This demonstration of a measure which has now passed well beyond the experimental stage has given proof that the plan is possible and reasonable, and it should serve as an encouragement to other states, where students in schools of nursing are still burdened with the severely long hours of difficult duty.

Thus, in California, the Bureau of Labor accomplished in one swift stroke what apparently had been thought impossible, and, in taking hold of the situation, has shown conclusively that the eight-hour day for student nurses is wholly practical and reasonable of accomplishment.

*From an article by Anna C. Jammé, Director, Bureau of Registration of Nurses, Board of Health, Sacramento, Cal., American Journal of Nursing, March, 1919.

SCHOLARSHIPS FOR PUBLIC HEALTH NURSES

Demand for Nurses in Public Health Field Prompts Establishment of Fund by Red Cross—Two Courses to Be Given

The war and the recent influenza epidemic have called attention to the vital need throughout the country for public health nurses. In the hope of inducing many of the twenty thousand nurses soon to be released from the army and navy corps to take either the eight months' or the four months' course of training in public health nursing, so that future demands for such personnel may be met as far as possible, the American Red Cross has appropriated $100,000 to be used as a public scholarship fund. At the present time there are only about six thousand public health nurses in the United States, and it is hoped that many of the graduate nurses who will be released from military service may be encouraged to enter this field of work, where they are so urgently needed.

The Red Cross public health scholarship fund will be administered by the Department of Nursing. The maximum scholarship for the eight months' course is $600 and the four months' course $300. These scholarships will be granted on the recommendation of Red Cross Division Directors of Public Health Nursing and will be subject to the approval of the Department of Nursing at national headquarters. Additional recommendations will be made by a joint committee representing the three national nursing organizations through their representatives at the Red Cross Bureau of Information in New York City.

DEPARTMENT OF DIETETICS

Conducted by LULU GRAVES

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Home Economics Building, Cornell University, Ithaca, N. Y.

WOMEN COOKS FOR HOSPITAL KITCHENS

Suggested Establishment of Army Cooking Service Brings Out Possibilities of Ranking System for Dietary Departments of Institutions—Actual Experiment Shows Superiority of Women Cooks

A timely discussion of cooks is found in a chapter of "Memoranda on Army General Hospital Administration," by various authors, edited by Lieut.-Col. P. Mitchell, M.D., R.A.M.C.

It would be interesting to know if the majority of us are in favor of women cooks in hospital kitchens.

If the establishing of an army cooking service on a basis similar to the army nursing service could be made satisfactory, what could be done in the dietary departments of our hospital and other institutions to establish a system of ranking?

KITCHENS AND COOKS

"Early in the war an agitation was carried on in favor of women army cooks. The reasons stated for the change where (1) waste in hospital and camp kitchens, and (2) men (soldiers) doing women's work when they were required in the fighting line. The waste was actually due to food not eaten, because it was not palatable to the new army men, who had been accustomed in civil life to more variety in their food, better cooking, and receiving it nicely served. The so-called waste was not a loss to the public purse, but to the individual soldier. The daily ration issued to each soldier is a fixed quantity, with a money allowance of about a third of the ration value to provide variety in the day's diets. If the food is not consumed, it is not a loss borne by the public; but it is a loss to the soldier, who has to make good from the canteen at his own expense, or carry on his training underfed. The popular reason for replacing male cooks by women was that the men would be available for fighting. Now, the commanding officers of our voluntary or new army soldiers invariably had their kitchen duties performed by unfits—i. e., men physically or mentally worthless for fighting. Just as a number of women are physically and mentally able to be combatants, so you find in the army a number of men who are more or less physically or mentally unfit to be combatant soldiers, and who are content in carrying on duties better suited to the average woman. Such men are usually of more value than unskilled women in the labor market, and it would be national economy if they were discharged to civil life as soon as their combatant limitations were recognized. The essential reason for having army kitchens staffed by women is that there are sufficient women available, who possess the diploma in domestic science, to undertake the 'trained' kitchen duties, and that willing, capable women, without such valuable training, are numerous enough to carry on the 'untrained' duties.

"Indifferent cooking and delayed distribution of food are as detrimental to the disabled as an inefficient nursing service. For the first fifteen months of the war I was fortunate in having fairly good male cooks in a territorial general hospital with four kitchens. As none of them were physically fit for the fighting line, I was naturally reluctant to replace them by women who were to be accepted on the recommendation of a centralized committee, and not by direct local enlistment. The general duties were to be carried on by casual women workers, obtained from the local labor exchange. Ultimately eleven cooks were carefully selected locally by a voluntary subcommittee. The benefits from the change to women cooks were obvious from the first. They were placed directly under the quartermaster, and the accounting difficulties were made easy for them. The general duties of the kitchen were also more satisfactorily performed by the untrained women than by orderlies; and only one orderly was considered necessary in a kitchen, for heavy lifts and as a butcher.

"There is no reason why those on duty within all army hospital kitchens should not be women, each kitchen being under a head-cook, who would be responsible through the quartermaster for accounting and the technical fitness of her staff, and to the matron only for discipline. It would be more satisfactory establishing an Army Cooking Service on a similar basis to the Army Nursing Service, with grades of pay and allowance, the 'trained' members to be confined to those possessing a recognized certificate in domestic science, and the 'untrained' to be posted from the Red Cross committees."

* * * *

THE REQUIREMENTS OF A GOOD COOK

Examination Reveals the Fact That Nine Out of Ten Cooks Lack Necessary Qualifications—Safe Cooking Essential to Maintenance of Good Health

Jane Eddington, of the Chicago *Tribune*, expresses her opinion on the status of the cook in a most emphatic manner. She says she has changed from a college teacher and writer to a cook and is willing to be known as "a cook par excellence." She tells some of the things she has found which are all too true and which may be as applicable to hospital kitchens as to the ones referred to in public schools and elsewhere. In the following extracts from her department are some points well worth giving thought to.

CARELESS ABOUT CLEANLINESS

"Lately I have visited some public school work. The work looked about as poor as it could be. Every operation going on was conducted in a slovenly way. One of the girls was preparing celery for creaming. The stalks were exceedingly muddy, and she was cutting them up without first washing off the mud. The compost in which such things grow is rich in hundreds of kinds of objectionable dirt. Each stem of that stalk of celery should have been carefully washed and lightly scraped before it was cut, thus saving all those cut ends from contamination.

"As I have rushed from city to city in a sort of tour of examination lately, I have been surprised to see how little influence the teaching about clean hands, given such wide publicity such a short time ago, has had. I have to refuse to think when I eat in certain places, and I am astonished that this simple elemental fact, which used to be taught as a social amenity, seems never to be thought of by scores of people who handle cooked foods.

"It is a sad thing, and then again laughable. I heard this anecdote not long ago. A hermit was quizzed about his cooking and asked if he ever used cook books. He replied that he did not think much of these. He said he had bought one once, but the first statement, 'Take a clean dish,' showed how worthless it was.

COOK'S FIRST REQUIREMENT

"My first requirement of cooks would be that they should have some sanitary knowledge. By this requirement I shut out nine-tenths of those who are classed as cooks. I could give a long list of illustrations to show why they have no such knowledge. In some of their operations they act as though they had—as, for instance, in cutting up a chicken or removing all the meat without first drawing it. In canning chicken this is considered the only safe way to proceed. In great kitchens—kitchens presided over by chefs—it may constitute one of the great extravagances which are all too common and which seem inevitable to not-too-well-trained people who must serve large numbers

"There is great hope for cooking when people realize that only by safe cooking and right eating can health be maintained over long periods of time. More and more are people becoming conscious of lowered states of endurance, of states that stop short of prostrating illnesses, and more and more they are learning how to keep resistance high, not only by exercise and out-of-door air, but by what is more fundamental, through food, the right food correctly prepared and eaten in correct proportions and combinations.

EASIER WAYS IN MODERN KITCHEN

"It is possible today to have beautiful and more efficient cooking utensils than were formerly possessed except by great kitchens, where no expense was spared that gourmands might have pleasure and continue the tradition that eating good food is a most sinful indulgence.

"Running hot water in the kitchen sink has lessened the task of dish-washing 75 per cent. Those who complain of this work today have not given intelligent attention to mastering it. Elbow room may be scanty in our modern kitchens, but, as a consequence, about three-quarters of the energy formerly used in traveling over the floor is saved, whether we wash dishes or get a dinner.

"Some of the people most greedy to eat that I know of in the world are the most unlovely of mind and ultimately of body. If they had but turned that ever lively interest they have in food to creative effort concerning it they would not be the gross, selfish, unattractive people they are. Food takes a fair revenge upon them.

"We must eat. We may like to eat. We can not be highly intelligent about eating unless we know how food is prepared. Perhaps from these statements we might formulate a definition of what a cook is."

* * * *

Special Field Work Course in Home Economics

The committee of home economics of the Charity Organization Society of New York City is planning to organize a course of field work which may be of interest to many dietitians. For those who are planning to enter social welfare work, either in the social service departments of a hospital or in the social welfare department of a city, it would seem that this course would be valuable.

Miss Cora M. Winchell of Teachers' College is chairman of the sub-committee in charge of this course, and the other members of the committee are Mrs. Rose, of Teachers' College; Miss Lord and Miss Jessie Long, of Pratt Institute; Mr. Porter R. Lee, of the New York School of Philanthropy, and Miss J. C. Colcord and Miss Emma A. Winslow, of the Charity Organization Society.

The following announcement of the course has been received at this office:

The aim of the course is to bring students, teachers, and other workers in home economics into closer contact with home living conditions in industrial neighborhoods and with the methods by which various social agencies are endeavoring to raise home standards and prevent personal and family breakdowns.

Admission requirements are as follows: (1) members must have completed at least three years in advance of high school in an accredited institution and must be specially recommended by the department of home economics in the institution from which they apply; or they must be well qualified by home economics training plus successful experience in teaching or other professional work.

The size of the group is limited to twenty-five. Application for membership should be in the hands of the committee by May 15.

There are no fees connected with the course.

It will be given from June 9 to July 5, 1919. The hours will be from 9 a. m. to 5 p. m., Mondays to Fridays, and from 9 a. m. to 12 m. Saturdays.

Four days a week will be spent in carefully planned and supervised field work with one of a group of specially selected social agencies in New York City. One day a week will be used for lectures, discussions, and visits to institutions or social agencies doing work of immediate interest in connection with home economics. One-half day a week will be used for round table discussions of field work experiences.

Teachers College, Columbia University, has agreed to give graduate and undergraduate credit for the course, the amount varying according to quality and amount of student's work as indicated by reports of supervisors and by student's diary record of work performed. Teachers College credit is to be 3 to 5 points (1 point=1/124 four-year course leading to B.S. degree). It is hoped that other colleges will be willing to make similar credit grants.

For further information and application blanks write to Miss Emma A. Winslow, secretary, Committee on Home Economics, Charity Organization Society, 105 East 22nd Street, New York City.

* * * *

NEWS NOTES OF DIETITIANS

At a number of round-table discussions which have been held by dietitians at various times and places during the past year, the interest and enthusiasm have become so great that it was not an easy thing to bring the meeting to a close. This proves conclusively that we are all glad to hear what others are doing and how they are doing it. As it is not possible for all of us to attend all meetings, why not have this interchange of ideas through some other medium? Repeatedly, the request has been made that this department be used for just such purpose. Imagine the rejoicing over two voluntary contributions received during the past month! Two in one month! After two years of effort on the part of the editor! We feel much encouraged. Surely some one else has a bit of information to give, or a problem which a general discussion would help solve.

Miss Rena Eckman, collaborator with Dr. Hill in "The Allen Treatment of Diabetes," has accepted the position of manager of the Foote Hospital, Jackson, Mich.

Miss Root, dietitian at Orthopedic Hospital, New York City, has been given the rank of assistant superintendent.

At the last meeting of the Baltimore Dietitians' Club, Dr. Moss, superintendent of Hebrew Hospital, spoke on "The Hospital Accounting System." At a recent meeting, Dr. E. V. McCollum, of the School of Hygiene and Public Health, Johns Hopkins University, spoke on the "Newer Knowledge of Nutrition" before a group of sixty. The members of the newly organized Home Economics Association of Baltimore were guests of the evening.

The dietitians of Baltimore are fortunate in being able to attend the course in nutrition given by Dr. McCullom at the School of Hygiene and Public Health during this semester.

Miss Anna Ruhl, of Manheim, Pa., was appointed dietitian at the South Baltimore Hospital the first of December. She is a graduate of Hood College, Frederick, Md.

Miss Marie Mount has recently finished a survey at St. Mary's Seminary, Baltimore, of their dietary department. In consequence many changes are to be made as to equipment, and a new bakery is to be installed. St. Mary's Seminary is one of the oldest training schools for priests in the United States. Their dietary department is in charge of the Sisters of Divine Providence.

Miss May Foley, who has been dietitian in the base hospital at Fort Riley for more than a year, has been released from the service. Miss Foley's work at Fort Riley was done in such a creditable manner that special mention of it has been made by both the Red Cross and the army inspectors.

Miss Anne Upham, who went overseas as dietitian with the Lakeside Hospital unit, has returned to this country. Miss Upham was one of the first dietitians to go to France. Her work and the attention it attracted in the British hospitals has been noted before in these columns.

* * * *

In the April number of THE MODERN HOSPITAL, the article entitled, "Once More—The Banana," contained a picture which really illustrated a serving of baked banana (Fig. 3) instead of the serving of apple and banana pudding as was indicated in the description.

LETTERS TO THE EDITOR

A Nurse Speaks on the Nursing Question

To the Editor of THE MODERN HOSPITAL:

Your editorial in the April issue of THE MODERN HOSPITAL, "Nursing in Families of Limited Means," has caught my attention. Your remark that "unfortunately discussion of the question has, in some local instances, at least, resolved itself largely into recriminations between physicians and nurses" is quite true in too many instances, but what seems to me to be even more deplorable is the fact that it has gone further than that. It has involved hospital authorities and patrons on the one side, and representative nurses and nursing organizations on the other.

In your promised further discussion of "remedies" I hope you will emphasize the power of the community (in the broad sense) in all this. The community has been too prone to accept the view that health measures—let them be exercised by the doctor or nurse—are not its (the community's) business.

This question of nursing is surely another result of demand and supply, and the losers or gainers from its operation are the people; therefore each community, of whatever nature, should be vitally interested.

I can not imagine any well-informed person being unwilling to admit that the preparation of women to do nursing comes within the realm of the educational, which, of course, implies the recognition of standards. But this does not bar provision for different grades of work.

While I am a nurse, my work for the past eighteen years has been that of superintendent of both hospital and school; hence, I feel I can see all sides of the question rather more clearly than those nurses who have occupied positions in the school only. And I cannot rid myself of the belief that much of the difficulty in working out these problems arises from a failure on the part of all concerned to secure an all-around point of view. Why should so much time and energy be wasted in, as you say, "recriminations" and criticisms that are anything but constructive?

The development of nursing may be represented in epochs, the first being the introduction of schools of nursing into the hospitals, which brought about wonderful developments in medicine and surgery. Second came what I frankly call the epoch of exploitation, meaning by this that, in the reaction from the nursing (?) of the pre-training school period, the nurse, in a large measure, came to be regarded as a part of the hospital machinery and (I know whereof I speak) was worked hard, fed and housed poorly. Many a hospital, sending out its prospectus describing its course of instruction, failed to provide for the carrying out of its promise. No one can deny that a reaction from these conditions was inevitable, and this reaction naturally led to the next, or third, epoch, which may be described as the period of standardization, and which, as we all know, has brought both desirable and undesirable results. While not claiming perfection on the part of the nurses, I can not in honesty endorse much of the opposition they have met in their efforts to secure better standards, which efforts have, it is obvious, benefited the hospitals at the same time. And *now* we apparently have reached the fourth epoch, for which I know no better name than that of readjustment, in which there *must be a coming together.*

When a man has a critical illness visited upon him he should have skilled nursing, no matter whether he has a fat or lean purse. He never will have it if he belongs to the "moderate means" class, however, so long as the problem is regarded as the sole responsibility of either doctor or nurse.

The mistake we are making in our study of the question is to regard it as the responsibility of individuals or certain groups of individuals, rather than that of the community.

The movement now being made in this state (New York) to provide "health centers" would seem to indicate that there is an awakening along the line of supply as to nursing as well as to providing medical care.

NANCY E. CADMUS, R.N.,
Superintendent Manhattan Maternity and Dispensary.

* * * *

Elementary Nursing Course in Public Schools

To the Editor of THE MODERN HOSPITAL:

Every woman should know something about nursing. The ignorance along these lines among the educated, well-to-do is simply appalling. Why not have a course of nursing principles, similar to the course in "Elementary Hygiene and Home Care of the Sick," given now by the Red Cross, taught in the public schools? If made compulsory in the eighth grade and in the first year of high school, this ought to insure better hygiene in the homes within a generation and be of inestimable help during an epidemic.

A REGISTERED NURSE.

* * * *

An Error Corrected

To the Editor of THE MODERN HOSPITAL:

In my article, "The Dictaphone in the Hospital," published in the January issue, I inadvertently used a trade name. While I have no desire to discriminate against the Dictaphone. will you be good enough to insert a correction to the effect that it is the Ediphone that we are using, and not the Dictaphone?

I think this only justice to the machine that we are using.

F. E. CHAPMAN,
Superintendent, Mount Sinai Hospital, Cleveland.

Bonus for Discharged Service Men and Nurses

The Red Cross is trying to spread the information regarding the provisions of the new Revenue Bill for a $60 bonus to be paid to all soldiers and nurses discharged since April 1, 1917.

As many soldiers were discharged prior to the passage of the bill, the War Department is anxious that information regarding the bonus should be disseminated as widely as possible. Those who are discharged hereafter will receive this bonus on the same roll or voucher upon which they are paid their final pay.

Vigor is contagious; and whatever makes us either think or feel strongly adds to our power and enlarges our field of action.—Emerson.

If you want things done, call on a busy man; the man of leisure has no time.

BULLETIN OF THE AMERICAN HOSPITAL ASSOCIATION

Offices:
728 Seventeenth Street, Washington, D. C.
308 Anisfield Building, Cleveland, Ohio
Monthly Bulletin issued by the Executive Secretary
308 Anisfield Building, Cleveland, Ohio
HOWELL WRIGHT Executive Secretary

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Mr. Asa Bacon, Treasurer	Mr. Howell Wright, Secretary

Institutional Membership

PLEASE SEND IN YOUR APPLICATIONS

Since publication of the last Association bulletin, applications for institutional membership have been received from the following:

General Hospital	Saranac Lake, N. Y.
Alliance City Hospital	Alliance, Ohio.
Eye and Ear Hospital	Pittsburgh, Pa.
Lankenau Hospital	Philadelphia, Pa.
New York Nursery and Child's Hospital	New York City
Staten Island Hospital	Tompkinsville, N. Y.
Barnes Hospital	St. Louis, Mo.
Bronson Hospital	Kalamazoo, Mich.
Central Free Dispensary	Chicago.
Children's Homeo Hospital	Philadelphia, Pa.
Cottage State Hospital	Philipsburg, Pa.
Highland Park Hospital	Highland Park, Mich.
Hurley Hospital	Flint, Mich.
Metropolitan Life Sanatorium	Mt. McGregor, N. Y.
Middlesex General Hospital	New Brunswick, N. J.
Milwaukee's Children's Hospital	Milwaukee, Wis.
Mount Sinai Hospital	Milwaukee, Wis.
New England Deaconess Hospital	Boston.
New York Post Graduate Hospital	New York City.
Santa Filomena Sanatorium	San Francisco.

The membership committee has approved the membership applications of the first ninety-eight hospitals. Membership certificates are being prepared and will be sent out to these institutions at the earliest possible moment.

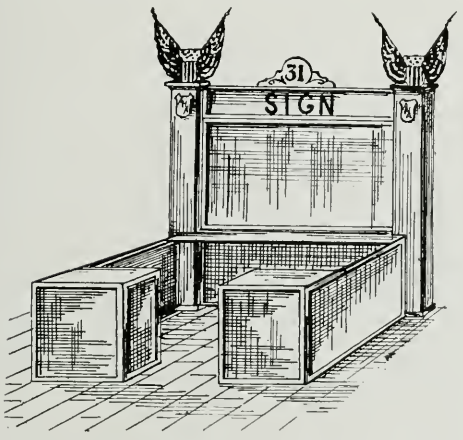

Fig. 1. Booth to be used in the commercial exhibit of the American Hospital Association at its annual convention in 1919.

Fig. 2. Hotel Gibson, Cincinnati, Ohio, where the Twenty-second Annual Convention of the American Hospital Association is to be held Sept. 8-12, 1919.

Meeting Board of Trustees American Hospital Association

The meeting was held March 17, 1919, at Hotel Gibson, Cincinnati, O. Those present were: Dr. Warner, Mr. Bacon, and the secretary.

The question of lack of a quorum was not raised, but it was understood that the minutes should be submitted to the other members of the board of trustees not present for approval.

The minutes of the last meeting of the board of trustees, September 27, 1918, were read and approved.

The following telegram, which was not entered in the

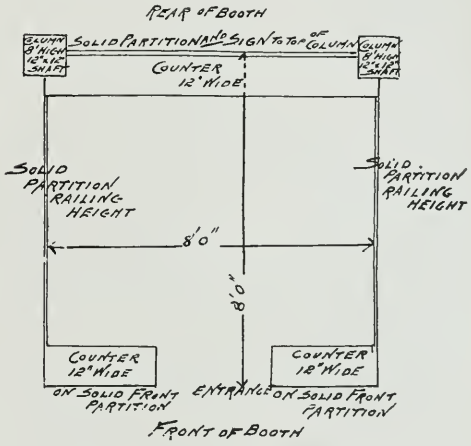

Fig. 3. Plan of booth for commercial exhibit.

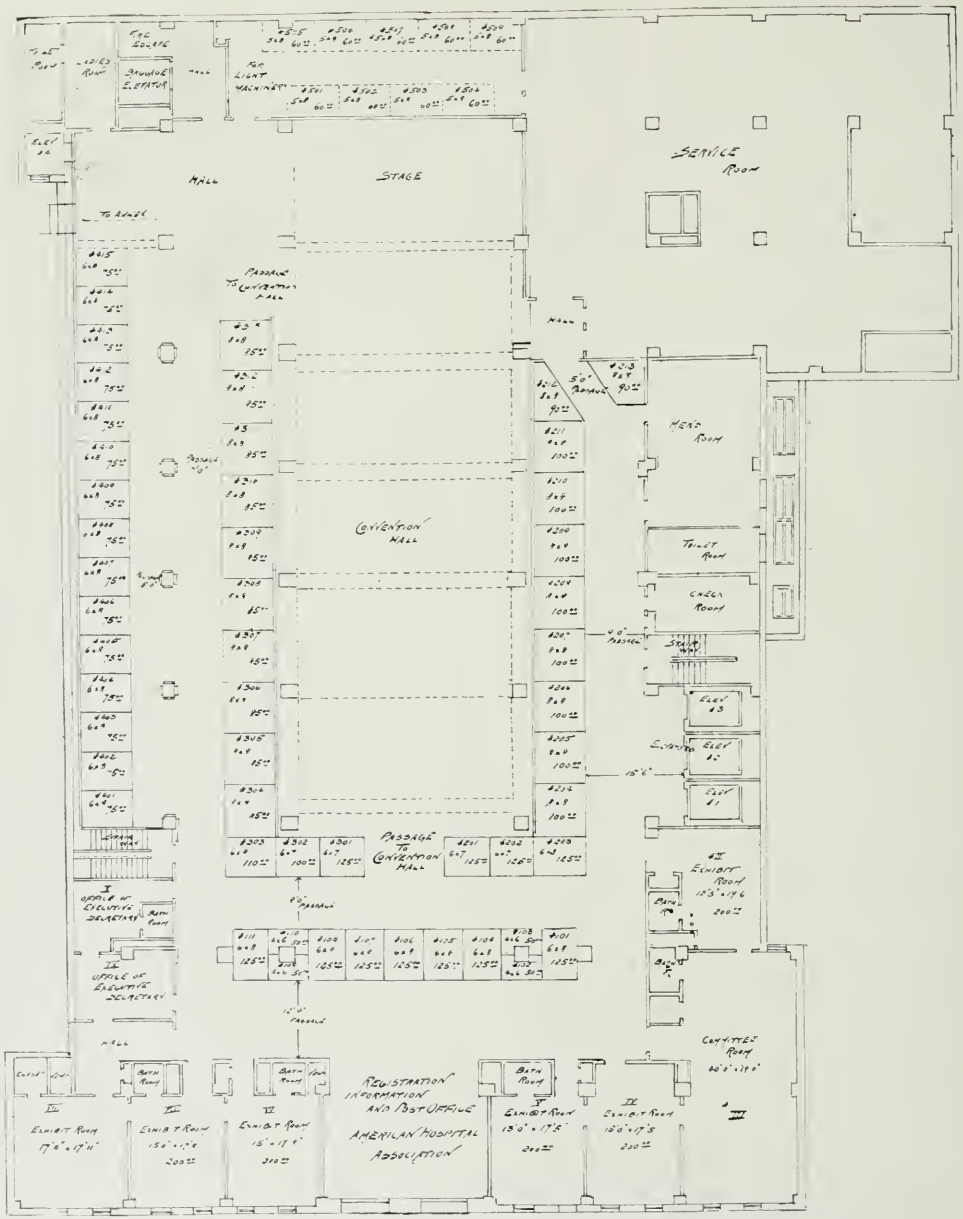

Fig. 4. Ground floor and ballroom of the Hotel Gibson where the commercial exhibit of the American Hospital Association meeting is to be held.

minutes of the September, 1918, meeting of the board, was received and placed on file:

American Hospital Association,
Care of Howell Wright, Cleveland,
Accept my resignation secretary recommend Howell Wright best wishes.
WALSH.

The president presented a telegram from and correspondence with Colonel Walsh relative to his reinstatement as secretary of the American Hospital Association. It was the consensus of opinion that there was no vacancy and, therefore, no action was taken.

1919 Convention

The president reported that the Section on Nursing had not elected a chairman at the 1918 convention and there-

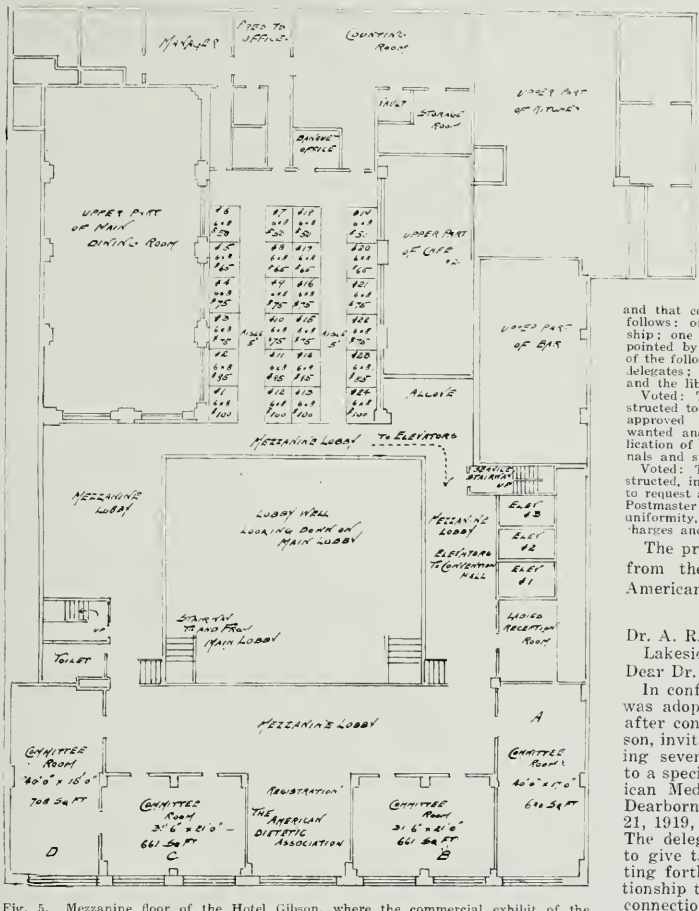

Fig. 5. Mezzanine floor of the Hotel Gibson, where the commercial exhibit of the American Dietetics Association is to be held.

fore he had requested Miss E. M. Lawler, superintendent of nurses, Johns Hopkins Hospital, to act as chairman.

The president presented various points for discussion and decision for his guidance. The following actions sum up these discussions:

Voted: That each section be limited to one general meeting at the 1919 convention unless some special reason shall make necessary in some instances more than one.

Voted: That one evening be devoted to the discussion of various hospital problems and that Mr. Asa S. Bacon act as chairman of the meeting. This action was prompted by the successful meeting of hospital superintendents and others held at Atlantic City, which was really a round table discussion and at which those present presented for consideration such subjects as they wished.

Voted: That the association again request the governors of the various states to appoint delegates to the convention; to provide them with credentials and that there be special registration for such delegates; that there be a special meeting of such delegates arranged as a part of program.

Voted: That a letter be sent by the American Hospital Association, as heretofore, to the presidents of the boards of trustees of the various hospitals, urging that the hospital pay the expenses of their delegates to the convention.

Voted: That social and health insurance be given an important place on the program.

Voted: That the secretary be and is hereby authorized to enter into a contract with G. K. Anderson, convention reporter, to report the proceedings of the convention and its various sections, on the best terms.

Voted: That, so far as possible, there be no more than two twenty-minute papers read at a general session: that every effort be made in advance to promote discussion; that, so far as possible, persons be assigned in advance to open discussion of papers read.

Voted: That arrangements be made for an exhibit of hospital plans, blue prints, pictures, sketches and models, in cooperation with the Section on Hospital Construction, similar to the exhibit at the 1917 convention.

Voted: That the secretary be and he is hereby instructed to send bulletins of the Association to THE MODERN HOSPITAL, *Hospital Management*, *Southern Hospital Record*, and, when proper, send such bulletins to other journals, including medical and nursing journals, and when advisable to prepare a special bulletin of the work of the association for such journals. It was the consensus of opinion that, while all bulletins issued should contain complete information about the work of the association and its various sections and committees, they should also contain information about the public health and hospitals in relation to public health.

Voted: That the proposal to have the 1918 proceedings published by The Modern Hospital Publishing Company be and the same is hereby approved, and that copies be distributed so far as possible as follows: one copy to each personal paid-up membership; one copy to each of the three delegates appointed by institutional members; one copy to each of the following when not included as one of the three delegates; president, superintendent of the hospital, and the librarian.

Voted: That the secretary be and he is hereby instructed to promote so far as possible the previously approved policy of registering hospital positions wanted and hospital positions vacant, and the publication of the same through the various hospital journals and special bulletins of the association.

Voted: That the secretary be and he is hereby instructed, in cooperation with Mr. Cornelius S. Loder, to request a hearing before the proper division of the Postmaster General's Department on the question of uniformity, of standardization of hospital rates and charges and telephone service.

The president presented a communication from the Council of Medical Education, American Medical Association, as follows:

March 14, 1919.

Dr. A. R. Warner, Supt.,
Lakeside Hospital, Cleveland.

Dear Dr. Warner:

In conformity with your resolution which was adopted at our recent conference, and after conferring with Drs. Bevan and Dodson, invitations are being sent to the following seven organizations to send delegates to a special meeting to be held at the American Medical Association building, 535 N. Dearborn street, Chicago, on Monday, April 21, 1919, the session to begin at 10 o'clock. The delegates are asked to come prepared to give talks of about fifteen minutes, setting forth the particular interest and relationship their various organizations have in connection with hospitals and their standardization.

American Hospital Association
Federation of State Medical Boards of the U. S.
Association of American Medical Colleges
American Association of Hospital Social Workers
American Association of Nurses
American College of Surgeons
Catholic Hospital Association

Other associations considered were the American Public Health Association, American Dietetic Association, and the American Association of Industrial Physicians and Surgeons. In case you think it is particularly important that any of these, or any other organizations, be requested to send delegates to this preliminary meeting, please let me know by return mail or by night letter collect. It was thought, however, that the first committee should not be made too large.

I understand from Dr. Bevan that you will represent the American Hospital Association. We particularly desire to have you present.

N. P. COLWELL, Secretary,
Council on Medical Education.

Voted: That the president be and he is hereby instructed to represent the American Hospital Association at this conference.

Voted: That the proceedings for 1918 shall also include the following: personal membership list, corrected up to date; list of conventions with officers; list of life members; registration at 1918 convention; and applications for institutional membership up to date.

The board of trustees were entertained by the local executive committee and discussed local plans for the con-

vention. They also inspected the hotel and were made familiar with the facilities for entertaining the convention and the plans for the commercial exhibit.

The executive secretary made a verbal report of the work of his office since the last meeting of the board, including results of the institutional membership campaign, work of the Legislative Committee, etc.

Voted: That the report of the auditor, Mr. Robert Hamilton Smith, be approved and published in the next bulletin of the association.

The meeting adjourned.

Statement of Receipts and Disbursements for the Year Ending December 31, 1918

Balance on hand Jan. 1, 1918			$ 4,422.98
RECEIPTS			
Active Membership Fees	$3,970.00		
Associate Membership Fees	470.00		
Life Membership Fees	250.00	$4,690.00	
Commercial Exhibits		5,319.00	
Contributions		155.20	
Interest on Deposits		42 23	
Miscellaneous Receipts		40.76	
Total Receipts			$10,247.19
			$14,670.17
DISBURSEMENTS			
Administrative expenses:			
Office of president—			
Traveling expense		$ 275.78	
Office of treasurer—			
Supplies		4.68	
Office of secretary—			
Salaries	$2,625.00		
Supplies	1 085.18		
Traveling expense	860.49		
Office equipment	74.00		
Transactions of American Hospital Association	1,198.11		
General expense	547.67	6,390.45	
Convention expenses—			
Commercial exhibits	$1.715.85		
General expense	2,523.89	$4,239.74	
Committee expenses—			
Committee on war service	$ 465 24		
Committee on out-patient work	125.71		
Committee on accounting	32.48	$ 623.43	
Liberty Loan Bonds		$ 550.00	
Total disbursements			$12,084.08
Balance on hand December 31, 1918, distributed as follows:			$ 2,586.09
On hand		$ 2.42	
In bank		$2,583.67	$ 2,586.09

This certifies that the above statement of receipts and disbursements of the American Hospital Association is a true statement of the cash received and disbursed from January 1, 1918, to December 31, 1918.

ROBERT HAMILTON SMITH, Accountant.

Announcement of Commercial Exhibit

The Hotel Gibson will be the headquarters of the Twenty-first Annual Convention of the American Hospital Association. The commercial exhibit, postoffice, information and registration bureau, and non-commercial exhibit, will be located on the ball room floor. General sessions and the majority of section meetings will be held in this hotel.

The American Dietetic Association will again meet jointly with the American Hospital Association. Its commercial exhibit, and its information and registration bureau will be located on the mezzanine floor. The general sessions and section meetings will be held in the Hotel Gibson.

Those desiring space should communicate with the Executive Secretary, 308 Anisfield building, Cleveland, Ohio. Only such firms will be admitted as subscribe to the requirements and regulations.

This joint convention affords a splendid opportunity for manufacturers to exhibit their products before the trustees, superintendents, superintendents of nurses, dietitians, and stewards of American hospitals.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.
Director of the Boston Dispensary.

Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

THE NEED OF HOSPITAL BEDS FOR SYPHILIS

General Aspects of Hospital Problem of Syphilis—Contributions General Hospital Should Make to Management and Care of the Disease—Bed Requirements of the Work

BY JOHN H. STOKES, M.D., Head of the Section of Dermatology and Syphilology, Mayo Clinic, Rochester, Minn.

The problem of the care of syphilis is rapidly passing from obscurity into the limelight of a public health issue. Thanks to the vigorous backing of Federal and state governments, the time will soon be past when it will be either expedient or possible for anyone engaged in an activity involving the care of the sick to ignore the issue or refuse to make provision for it. Realizing the recent rapid change in point of view toward such questions, the American Hospital Association is urging institutions all over the country to take an active interest in the care of genital infections and to cooperate with the Federal program in developing appropriate facilities. The question at once arises as to what are appropriate facilities and what part the hospitals of the country shall play in supplying them; and it is with a view to contributing something as an answer to this question that the director of the Boston Dispensary has asked me to discuss the need of hospital facilities for the care of syphilis.

On several previous occasions[1] I have attempted to outline general aspects of the hospital problem of syphilis. The existence of such a problem is now well established, and its importance can be inferred from the very large part hospitals play in the national program of Great Britain, as developed by the Sydenham Royal Commission and placed in actual operation by the British local government boards. It is noteworthy that responsibility in this remarkably conservative and yet complete program is squarely placed, not upon special venereal or segregated hospitals, of which the commission expressly disapproves, but upon the general hospitals of Great Britain. Syphilis is a problem for the general hospital, which already treats the condition all the time under one disguise or another, scattering its various manifestations through perhaps acres of wards and a multiplicity of services, and either ignoring its existence or employing a variety of therapeutic methods second in number and variety only to the number and variety of the patients themselves. It has never really been a question with the general hospital whether it would permit the importation of the disease

1. Stokes, J. H.: Treatment of Syphilis in a General Hospital, THE MODERN HOSPITAL, March, 1916, vi, 171-176; The In-Patient Hospital in the Control and Study of Syphilis, Social Hygiene, 1916, ii, 207-231; Hospital Problems of Gonorrhea and Syphilis, Jour. Am. Med. Assn., 1916, lxvii, 1960-1962.

into its precincts, since such importation, often in the most contagious because least recognized form, is a constant element in all hospital work.

The best available evidence of the extent of the hospital problem of syphilis is contained in Wassermann surveys upon groups of in-patients on various large representative services in this country.[2] Estimates of its prevalence in hospital populations range from 6 to 25 per cent, depending, of course, to no small extent upon the types of patients dealt with, and involving also a certain element of inaccuracy inseparable from the shortcomings of the Wassermann test as a means of identifying syphilis. It may be taken, however, that a range of from 6 to 10 per cent of all patients admitted is conservative for the average hospital. More, rather than less, syphilis will probably be identified in hospital populations, as other aids, including expert syphilological and spinal fluid examinations, are invoked.

Since the figures given deal with the bed services of hospitals, they are apropos in a consideration of the duty of a hospital to provide beds for syphilis. The estimates quoted demonstrate, by the very fact that the patients included in them occupy beds, the fact that there is such a thing as a bed problem in the management of syphilis. The ambulatory conception of the disease has unfortunately in this country overshadowed the appreciation of the very just claim of this most serious infection to adequate provision for its victims in the wards and rooms of hospitals. Since I have discussed them elsewhere, I merely summarize here categorically the eight ways in which the general hospital should contribute to the management of syphilis and derive reciprocal benefit from the relation.

1. Syphilis is often recognized by the hospital serologist when no other signs present themselves. The hospital serologist, by reason of training and environment, is specially fitted to be the performer of an authentic and trustworthy Wassermann, which is badly needed in these days. Of 500 patients examined by Horner (Boston City Hospital), 16 per cent had syphilis, although only 2 per cent had been identified by other means than the Wassermann.

2. Syphilis needs, for the proper care of its medical, surgical, neurological and special complications, the prolonged observation, cooperative diagnosis, and control which only a stable, well-organized hospital service can supply.

3. The actual technique of the intensive treatment of syphilis requires beds. Therapeutic control, a low mortality, and the successful management of the very sick patient, which is much commoner in syphilis than is generally realized, all demand something more than ambulatory facilities.

4. The hospital bed service is needed for a brief but necessary quarantine, which can be carried out without the slightest risk to other patients or the medical and nursing staff.

5. Well-organized treatment for syphilis, such as a hospital service can provide, has the same value in syphilis as sanatorium care has in tuberculosis. It is a factor in inculcating a sense of social responsibility in the patient and in encouraging ideals of rehabilitation and cure.

6. Organized hospital care of syphilis provides centers for the follow-up control so essential in the disease, for the development of the record systems, and for the outside professional cooperation essential to adequate treatment.

7. The hospital service provides the only place in which syphilis can be made a subject of thorough study and research.

8. The existence of a specially organized service for syphilis is of material assistance to any hospital group of diagnosticians in the prevention of blunders which arise from overlooking syphilis as a factor in diagnosis, and in the protection of staff and patients from the dangers attendant upon the admission of unrecognized contagious cases to wards and operating rooms without adequate supervision.

On each of these points it is possible for any active syphilological service to supply an abundance of concrete evidence. I have seen three extragenital infections in one year in the surgical personnel of a five-hundred-bed hospital, all of which could have been prevented had there been adequate diagnosis of syphilis. The diagnostic blunders of a staff which lacks a syphilologist and a syphilological service to put an edge on the recognition of the disease are often serious, but are properly the subject of a medical rather than a general presentation. Emphasis should be placed on the need of beds for intensive treatment. The administration of arsphenamin has enough complications and enough serious effects, direct and indirect, to justify the same period of hospital observation as a tonsillectomy. The really intensive treatment of syphilis, if carried out by a dispensary, must either subject the patient to unreasonable risk, or sacrifice effectiveness by reductions in dosage and loss of therapeutic control.

THE BED REQUIREMENTS OF SYPHILOLOGICAL WORK

How many beds are needed to meet the requirements of a service for syphilis? To show the inadequacy of existing provision, in general, the authoritative estimate of Pontoppidan, based on a very large Danish experience, should be recalled. For all the genital infections, there should be an average provision of one bed for each two thousand population. The existing situation in large cities more nearly approaches one bed to ten thousand population. As directly applicable to hospital and group practice, my own study of this question with respect to syphilis has led me to suggest the following basis for estimates: The number of beds required for syphilis will vary with the type of hospital and with its clientele, but it is conservative to estimate that the average hospital will be called upon to deal with at least a 6 per cent proportion of syphilis among its patients. Time is a factor in the number of beds required. Where five patients are confined to hospital six weeks apiece, they occupy as much per annum bed space as thirty patients who stay only one week. Under a properly organized system, the "turn-over" of average syphilis in a hospital can be rapid and can, in my experience, be reduced to about seven days of hospital residence per patient, per course. If courses are repeated it will be necessary to regard the returning patient as a new patient in estimating the bed capacity required.

2. Positive Wassermann tests in patients on various hospital services revealed the following percentage of syphilis:
28 per cent of 101 children examined at the Children's Memorial Hospital, Chicago.
31 per cent of 111 children admitted to the Children's Hospital, Boston. (Lucas, W. P.; Bost. Med. and Surg. Jour., 1913, clxix, 423-424.)
24.7 per cent of 312 cases, Boston Marine Hospital. (Public Health Reports No. 27, Cited in Jour. Am. Med. Assn., 1916, lxvii, 1821.)
15 per cent of 4000 hospital patients, Peter Bent Brigham Hospital (Walker, I. C. and Haller, D. A.; Jour. Am. Med. Assn., 1916, lxvi, 488-491.)
16 per cent of 500 patients, Boston City Hospital. (Hornor, A. A.; Bost. Med. and Surg. Jour., 1916, clxxiv, 194-195.)
11.3 per cent of 160 pregnant women in Cook County Hospital, Chicago. (Falls, F. T., and Moore, J. J.; Jour. Am. Med. Assn., 1916, lxvii, 574-579.)
6 per cent of 2000 patients in the gynecological service of the University Hospital, Ann Arbor, Michigan. (Peterson, R.; Surg., Gynec. and Obst., 1916, xxiii, 280-283.)

On the 6 per cent basis, a general hospital receiving 7,000 patients annually will admit about 500 patients with syphilis, who, on a basis of one week's stay, will maintain a service of ten beds. As a matter of fact, the percentage of "sick" syphilis admitted to a general hospital may be higher and turn-over will be delayed, so that the bed requirement will probably be nearer fifteen than ten beds. In my experience with various hospital services for syphilis these estimates seem to work out well in practice. For a service seeing 1,500 syphilitics annually, thirty beds is none too large an allotment. On the service of the Section of Dermatology and Syphilology of the Mayo Clinic, treating from 1,500 to 1,800 syphilitics per annum, thirty beds exclusively for syphilis are proving inadequate to the requirements. The majority of these patients are treated on the basis of six hospital days apiece, per course. In such a service, combining dermatology and syphilis, so that practically all aspects of the latter disease from the earliest to the latest stages are represented, 3,600 to 4,000 patients a year require fifty to sixty beds in order to give proper care to every type of case. The two thousand syphilitics in such a service require about thirty-five to forty of the beds.

The care of syphilis under any circumstances embraces an ambulatory as well as a hospital phase. The former is represented in a way by the consultant's offices, as in the Mayo Clinic, or by the dispensary. The latter centers in the hospital. Te achieve maximum harmony and efficiency, in- and out-patient phases must be under the same chief and the same staff. This fusion of office and hospital work into one, is spoken of elsewhere as "unit organization." Every service for syphilis must choose its clientele within fairly well-defined limits. Free service and night clinics attract a certain group and repel another. Coordinated, organized, large-scale pay service, as in a group practice, is attractive and acceptable to another large body of patients, but repels those who demand and can pay for the exclusive attention of a specialist, though the latter may be medically the less efficient of the two. The success of any service for syphilis will be proportional to the extent to which it individualizes its patients, and the amount of individualization necessary will increase proportionally to the social status of the clientele. In a public service, with its stalls and booths, its line-up and publicity, individualization is at its lowest. In the pay clientele of a large group practice the extent to which individualization and special consideration for the patient can be carried will determine, in the last analysis, the drawing power, the influence, and the patronage of the service. To secure such intensive individualization, unit organization is a *sine qua non*.

The importance of certain of the principles enunciated in this article has been abundantly borne out by my experience in the development of the work of the Section of Dermatology and Syphilology of the Mayo Clinic. The single-room type of hospital construction, a mechanical aid to individualization, is the type toward which we are striving. A special atmosphere can and should be created, akin in many of its qualities to the atmosphere of the best types of tuberculosis sanatoriums. Line-ups, publicity, crudity, rough-and-ready methods, noise and lack of refinement, coldness and lack of good will, are all dangerous to the integrity and success of any special service for this disease which deals with the so-called great middle class. Nor is there any reason why the poor should be obliged to submit to them merely because of their poverty. High-grade nursing, exceptional tact and discretion, the qualities of mind and heart in the staff which keep the patient always affectionately reminded of the department, are business assets in the care of syphilis no less than in the sale of goods and the building of commercial success.

The methods and principles described have, it is believed, no merely local applicability. They may be adapted to many types of hospitals and a variety of conditions. Organization can not, however, be carried out on theory alone. Nothing can be expected in the way of results where managerial niggardliness denies a newly organized service the sinews of war in the form of such equipment in offices and hospital beds as its performance can justify. Equally little can be expected where professional distrust and medical penny politics block the access to the legitimate field of the syphilologist. If a liberal policy and generous cooperation from co-workers prevail, an enthusiast with a little judgment, using material that now lies ready at hand, can quickly show, even with the most unassuming beginnings, that in the field of hospital care for the syphilitic there are possibilities for reward and humanitarian service that have lain too long untouched.

FREE DENTAL CLINICS FOR RURAL SCHOOL CHILDREN

Traveling Dental Service Instituted by North Carolina State Board of Health

Five years' experience in the inspection of about two hundred thousand North Carolina school children has clearly proved the urgent need for dental service in the schools, writes Dr. George M. Cooper, director of medical inspection of schools, North Carolina State Board of Health, in the *Southern Medical Journal*.

In the summer of 1918, the North Carolina State Board of Health sent out a traveling dental service. Emphasis was laid on cleaning the teeth, teaching the child and the parents the care of the teeth, and accustoming both to resort to private dentists thereafter.

The results obtained up to the close of the first four weeks of work were:

1. Two hundred and twelve dispensaries were held in nine counties.
2. Six thousand and seventy-one children received free treatment.
3. More than 100 lectures on oral hygiene were made to country people at night.
4. Equipment, including the best that money can buy, is already in place for a permanent dental infirmary for all the school children in the county, for two counties, and funds in hand for a third; and,
5. The total cost to obtain the foregoing results is $3,-199, or about 51 cents per capita.

The conclusions drawn can be summarized as follows:

1. Free dental service is a necessity which can and must be provided for all school children—certainly all those under twelve years of age.
2. Such service will increase the work of all good, private dentists, capable of doing more than they are doing, by at least 100 per cent.
3. The way to do the work is by salaried young dentists of the highest type and training, employed, paid, and directed by the state board of health.
4. The time for the work is during the school year.
5. The place to do the work is at the schoolhouse.
6. Everything necessary should be done for all the child's teeth except gold fillings, treatment of diseased pulp, etc.
7. The cost need not exceed one dollar for each child.

NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.

Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast Avenue, Oak Park, Illinois.

Invalid Carrier

A simple and inexpensive device has recently been invented for the purpose of converting an ordinary rocking chair into an invalid chair.

The frame is constructed of hardwood and supplied

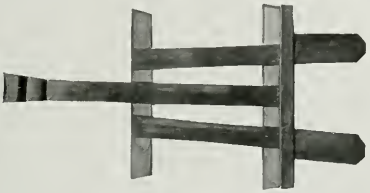

Fig. 1. Parker invalid carrier.

with easy-rolling ball-bearing casters. The cross bars are beveled toward the center, so as to permit the curved part of the rocker frame to fit the carrier, and there is sufficient space between the foot rests to permit the patient to get easily in and out of the chair. In order to push the chair over a threshold or other obstruction, all that is necessary is to place the foot on the treadle at the rear end of the carrier, press down, and the front of the chair will tilt up without causing discomfort to the patient.

The device is offered at the surgical supply stores under the name of the "Parker invalid carrier."

Fig. 2. Rocking chair in position on Parker invalid carrier.

New Hospital Call Switch

Very elaborate hospital call systems have been devised and installed, and in many instances they are giving satisfactory service. One trouble which often arises from their use, however, is caused by the fact that some of them employ a form of standard wiring device which the patient uses to signal the nurse. The trouble experienced is due to the fact that the so-called standard wiring devices are not intended for such service. When used for this purpose, they sometimes break or fall apart, and if this happens the patient may unfortunately come in contact with the flexible conductor carrying the voltage of the lighting circuit. Further, the flexible conductors carrying the push button or pendent switch may be worn or damp, thus making the signal inoperative.

A new device, under the name of a "hospital call switch," has just been developed, which is made for installation in a standard switch outlet box. The wiring does not extend beyond the box. No flexible conductors or push button switches are required for its use, and consequently the annoyance of having these parts broken and soiled is eliminated. Also, as the live parts terminate in

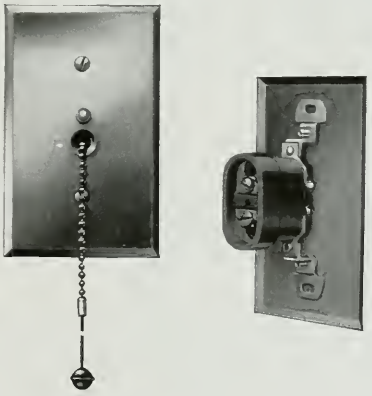

Fig. 1 (to left). "Hospital call switch" installed.
Fig. 2 (to right). Rear view of "hospital call switch," showing small proportions and connections for wiring

the wall, there is no possibility of the patient's coming in contact with them, and, therefore, some of the objectionable features spoken of above are eliminated. In addition, it offers a means of making a neat and cheaper installation.

From the accompanying illustrations it will be seen that the new device consists of a C-H standard push and pull mechanism slightly modified. The switch is operated by a pull chain. A linen cord placed within easy reach of the patient is used to pull the switch "on." The cord is attached to a short piece of chain which extends through a horn in the plate, and to a projection on a push button. A push button, located above the horn and extending

through the plate, is used by the nurse to push the switch off. The plate is the same size as those used for wall switches and receptacles, and the switches and the plates are made singly or in gangs. The new device may be used on any standard lighting circuit of 125 volts or less.

Inflatable Bag Hemostat

For the purpose of controlling hemorrhage after transvesical prostatectomy, Dr. Paul M. Pilcher of Brooklyn designed the bag shown here.

Figure 1 shows the bag deflated, the way it appears before insertion, and in inflated condition, also showing the wire protecting end of catheter attachment to bag. This wire insertion prevents the collapse of the catheter or drainage tube and insures continued free drainage.

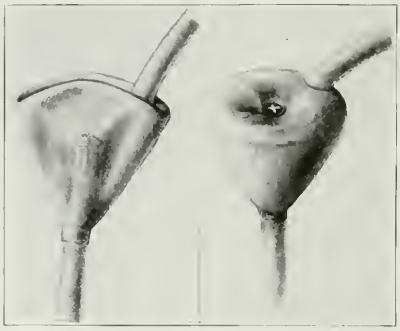

Fig. 1. Bag hemostat deflated (to left). Bag hemostat inflated (to right).

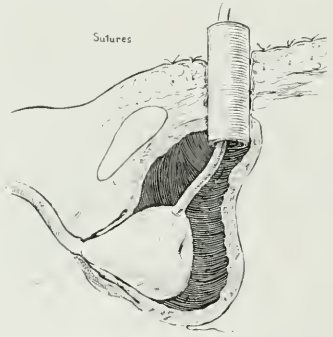

Fig. 2. Bag hemostat in use.

The Pilcher hemostatic bag is a modification of the bag devised several years ago by Dr. Hagner of Washington. Dr. Hagner's bag, however, was designed only for the purpose of exerting pressure, and not for drainage. It is a small inflatable rubber bag fashioned over a large-size catheter. The open tube catheter is entered through the suprapubic wound over a silver catheter and drawn down through the urethra. When the bag is in the bladder with the tube in the urethra, it is inflated through the inflating tube and the inflated bag is used for pressure against the bleeding surface from which the prostate has been removed. When extra pressure is desired, the catheter attachment is pulled down, which brings the bag more tightly in contact with the bleeding surface. This pressure may be maintained by attaching the catheter tube to the leg. The catheter tube also acts as an avenue for the escape of the urine from the bladder, which is shown in Figure 2.

When enucleation of the prostate is completed, the inflating tube is passed up through or beside a large drainage tube. After two or three hours the bag is allowed to deflate, but is kept in place. Should bleeding recommence the bag is at once reinflated and pressure is reestablished. As a rule the bag may be removed after about twenty-four hours.

The device can be secured at first-class surgical supply and instrument houses.

MILWAUKEE INFANTS' HOSPITAL RESUMES ITS WORK

Institution Whose Staff Was Severely Crippled by War Expects Soon to Regain Normal—Excellent Facilities for Care of Infants Afforded in New Building

The new building of the Milwaukee Infants' Hospital, which is one of the few institutions in the country devoted exclusively to the care of children under two years of age, was just completed at the time the United States entered the war. As seven of the eight physicians on the staff were called into military service, the work of the hospital has been somewhat handicapped, but it is hoped that, with their return, the usual activities will be resumed. The laboratory is well equipped and is in charge of Dr. R. M. Hall, a trained specialist, who has had some valuable army experience. Dr. A. W. Gray, the chief of the staff, is still at Camp Grant.

A training school which will offer an eighteen months' course for infants' nurses is soon to be established and, with the facilities and opportunities afforded by the hospital, should prove a very valuable addition.

The new building will undoubtedly be of interest to others who are doing similar work along infant welfare lines. Unfortunately, the plans can not be published at the present time, as the architect is still in government service, but it is hoped that they will be available for publication shortly after his release.

The new building of the Milwaukee Infants' Hospital, devoted entirely to the care of babies under two years of age.

Oases in the Mud

One American soldier-humorist has remarked that Brest, the French city from which the boys start for home, is about four miles square and four miles deep. Since the rains have made that place a quagmire of mud, the efforts of the Red Cross have been devoted largely to supplying a few dry spots, and the little rest huts with something to read and a place to smoke in dry comfort, are greatly appreciated.

THE MODERN HOSPITAL

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THE MURAL DECORATIONS OF THE INDIANAPOLIS CITY HOSPITAL

Scheme of Decoration Unique Except for Hospital in France—A Gift of Love from the Citizens and Artists of Indiana—Beauty Becomes Integral Part of the Hospital

By ETHEL CLELAND, Librarian, Business Branch Library, Indianapolis

THROUGH the generosity of one of its citizens, the city of Indianapolis, in November, 1914, added to its municipal hospital facilities two new units, known as the "Burdsal Units" in honor of the donor, Alfred Burdsal. These two buildings, or rather, this one building of two wings, is equipped with every modern appliance, convenience, and comfort that science has invented or skill perfected for the care and cure of the sick.

It was not enough, however, that the buildings should be of practical design, solidly and correctly built, hygienically painted, well lighted (it is one of the best and earliest examples in this country of indirect lighting), that elevators should run, that furnishings should be of the best in quality and generous in quantity, and that equipment should be correct according to the latest designs. All this one naturally expects to find in any big, modern hospital.

But here, in these units of the Indianapolis City Hospital, there is something more, something we have not been taught to look for in hospitals—that is, an elaborate scheme of mural decorations. All the wall spaces throughout the entire building, except those of the entrance corridors, are covered with paintings, painted directly on enormous canvases stretched upon the walls. As far as can be ascertained, no public hospital in the world—and only one private institution, a hospital in France—has anything like it, either in the character or magnitude of the work. And yet, as one makes the pilgrimage from floor to floor and from ward to ward, the discovery of such beauty as an integral part of a big hospital, instead of arousing surprise or even

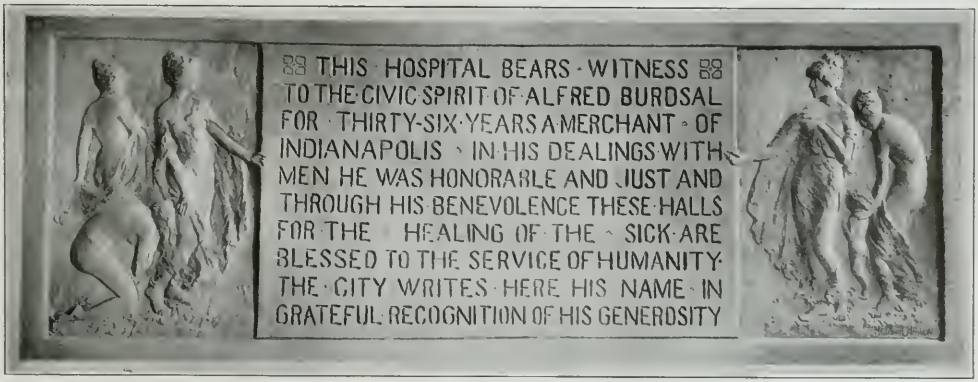

THIS HOSPITAL BEARS WITNESS
TO THE CIVIC SPIRIT OF ALFRED BURDSAL
FOR THIRTY-SIX YEARS A MERCHANT OF
INDIANAPOLIS IN HIS DEALINGS WITH
MEN HE WAS HONORABLE AND JUST AND
THROUGH HIS BENEVOLENCE THESE HALLS
FOR THE HEALING OF THE SICK ARE
BLESSED TO THE SERVICE OF HUMANITY
THE CITY WRITES HERE HIS NAME IN
GRATEFUL RECOGNITION OF HIS GENEROSITY

Fig. I. The bronze tablet over the entrance to the Burdsal Units of the Indianapolis City Hospital. The modeling is by Helene L. Hibben, the inscription by Meredith Nicholson.

Fig. 2. The prince picks up the glass slipper. From the Cinderella series in the hall of the children's ward (Carl Graf).

wonder, seems as natural and as much a part of the place as the doctors and nurses who minister to the patients.

In the midst of pain and suffering and the sorrow that pain and suffering almost inevitably bring, the pain and suffering and sorrow can not be forgotten or long ignored. But, as the eye of the pilgrim rests on these paintings, which do not adorn but which *are* the walls of the anterooms, the private rooms into which, in passing, he steals a glance, the long sun-swept wards, and even the big glassed-in porches, he feels inevitably the soothing touch of harmonious colors and generous outlines, and unconsciously he is filled with the hope that those lying there, in room after room—men, women, and little children; youth, the middle years, and old age; black and white—suffer less and find more surcease from their pain, are less discouraged over the vicissitudes that life has brought them, are less homesick in their temporary exile, and meet more bravely the longer journey that perhaps awaits them, by reason of the beauty that lies about them and above them, whenever they lift their eyes.

The best and most beautiful things in life are, we all know, the things we can not estimate or calculate or measure. If, in some mysterious way, we could but know the message these paintings with their gift of color, of story, of humanity, and of the great outdoors, have already brought, in the few years of their existence, to the shut-off and shut-in! Reaches of soft and tender colors, glimpses of peaceful waters, quiet trees, little children at play, fairy folk from the tales that have been loved for generations, babies asleep in their mothers' arms, groups of simple, happy men and women—surely all of these must have had their quiet, healing message.

Behind these beautiful canvases stretched on walls which, without them, would be just the customary painted walls of a hospital—clean and

Fig. 3. Toy circus from one wall of the children's dining room (Otto Stark).

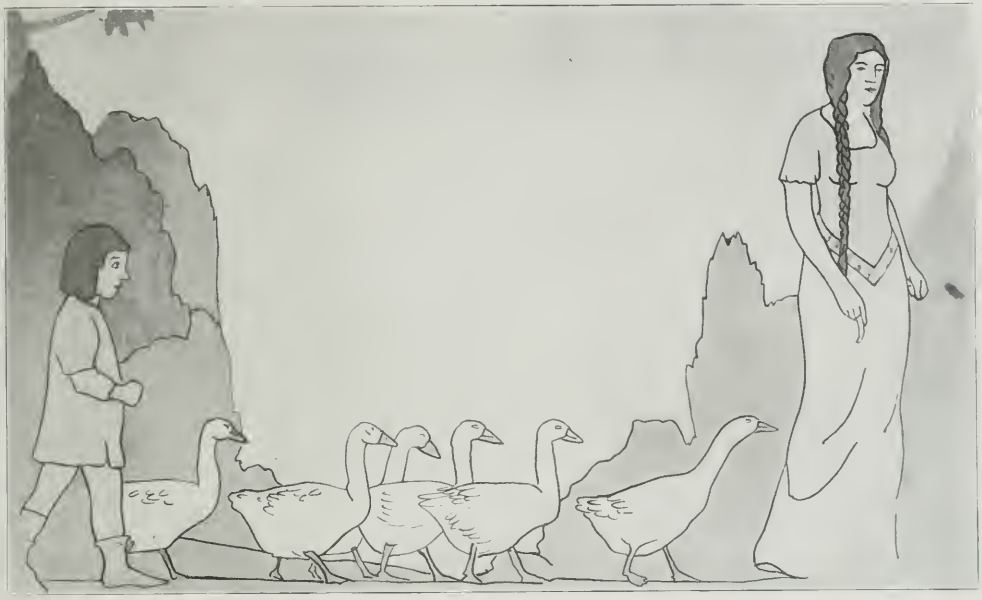


Fig. 4. The goose girl, beloved by many children, leads her geese across the wall of the children's sun parlor (Clifton Wheeler).

sanitary but cold and bare and lifeless—lies much that cannot be said. In their background there is, first of all, a little group of artists well-known in the art world as the "Hoosier group." To dwell at length on the history and characteristics of this group would be superfluous here. One of their own members, William Forsyth, says of them:

"A singleness of purpose has been the animating principle of this group of painters and their pupils. To paint their pictures here at home, to express themselves each in his own way and yet hold closely to that local truth characteristic of our particular spot of earth and interpret it in all its varying moods that are in its charm—this has held them faithful to their original intentions, has bound them together with a common purpose, and whatever success they have achieved is due to this. Even the appearance of their pictures testifies to the truth of this, for however much they may differ as to individual expression, treating the same subjects, influenced by the same moods of nature, trained in the same schools, associated together more or less for years, even as occasion demanded, using the same technique, there is a family likeness, indefinite perhaps, but yet a likeness, binding them together into perhaps as near a school of painting as has been developed in this country—certainly in the West."

Their work, their love for their native state, their affiliations, their summer colonies along the streams and among the hills of Indiana—all these things have endeared them to the inhabitants of the Hoosier commonwealth in much the same way that James Whitcomb Riley is enshrined in Hoosier hearts. Who could be more worthy than members of this group to share in and to direct the younger artists, members of the Hoosier group by inheritance, in this labor of love, the adornment of a great public building in the capital city of their state?

Of the original "Hoosier group," T. C. Steele, William Forsyth, J. Otis Adams, and Otto Stark are represented on the walls of the hospital. William Forsyth had the direction of the whole plan of the decorations. While the work was in progress, during the years 1914 and 1915, some of the

Fig. 5. "Over the hills and far away," the prince rides with Cinderella.

Fig. 6. The children's ward is a picture gallery of portrait after portrait of happy, healthy children (Wayman Adams).

other names that follow were already beginning to be known outside of local artistic circles: Clifton Wheeler, Wayman Adams, William Scott, the negro artist, Carl Graf, Simon Baus, Martinus Anderson, Francis Brown, Walter Eisnogel, Dorothy Morlan, and Emma B. King. Many of these younger artists, who regarded participation in this big work as an opportunity, not as a task, are now well on their way to fame, but one wonders if anything in their future years will mean so much to them as did their share in this big scheme of mural decorations.

Side by side with these artists, without whom this work could never have been accomplished, stands another little group without whom the idea might never have been conceived or carried to execution—St. Margaret's Hospital Guild of St. Paul's Church of Indianapolis. This little band of young women with no fame outside their own chosen field of service is typical of many other such organizations all over this country working under the ideals of the modern social service movement. Organized in 1907 under the influence of the rector of the church, the Reverend Lewis Brown, who continues to retain an active interest in all their work, they decided to devote their energies to hospital work, particularly in the city hospital. They included in their idea of such service not only personal visits and ministrations among the inmates of the institution but also follow-up work in the homes after the patients have been dismissed. It is they who bring Christmas cheer and Easter flowers to the hospital, and a happy day in the wards is the June day when they fill the place with the flowers of early summer. A very interesting feature about the organization is that, while it is recognized as a part of the work of the church, it is non-sectarian, and anyone wishing to join in the work is eligible to membership, no matter what religious faith she professes.

It is not surprising to find that such an active, broad, and far-sighted body should respond quickly to the suggestion that it aid in some way in the beautifying of the Burdsal Units of its hospital. From the first idea of a single painting by a local artist as a suitable and lasting gift from the society, their purpose gradually expanded into the enormous undertaking of a scheme of mural art for the whole building, on which not one but practically all the artists of Indianapolis were engaged. To this work St. Margaret's Guild contributed in money $1,000, but who can estimate what they contributed in inspiration, support, and enthusiasm towards the fulfillment of this idea, which grows in beauty and in value as an artistic production year by year? All other expense beyond this gift of $1,000—and this means practically all of the work of the artists—was donated, and donated with a generosity that adds to the beauty of the finished work.

One other thing—and a truly remarkable thing in institutional history—must not be omitted in this brief attempt to tell how this one hospital came to be decorated as other hospitals are not. It happened, very fortunately, that, at the time the work was proposed, the physician who was the president of the Indianapolis city board of health was a man who combined professional qualities of a high order with a deep and sincere appreciation of beauty and rare artistic insight. This man was Dr. T. Victor Keene. No one but Dr. Keene himself, probably, has any knowledge of how much he has done to help and encourage the younger artists of Indianapolis. It is safe to say that without the official support that Dr. Keene was able to give, such a plan as this wonderful decorative scheme could not have been put into execution at all. It seems a happy combination, indeed, when those who conceive the original idea, those who execute it, and the civic authorities work together with such high aims and to such a successful result.

Whether to be accounted for by the existence of "The Hoosier Group," and its influence and guidance in carrying out the plan—whether by

Fig. 7. "Little Indian, Sioux or Crow, little frosty Eskimo—" children of all nations smile down on the children in the beds (Wayman Adams).

the thoughts of service that first inspired it—whether by some awakening of the spirit of local civic pride—whether by the indirect effect of Indiana suns and summers and the glories of Indiana autumns—the entire completed work gives forth a wonderfully harmonious impression of having been done by one master hand; such decided variations in style as do occur are easily traceable, in imagination, to the varying moods of the great over-artist, as, for example, in the psychopathic ward, where Mr. Steele's rich and colorful panels of the four seasons as they are known in Indiana are stretched, or where Wayman Adams, in place of using the big canvases employed in the other rooms, makes of the long children's ward a picture gallery of portrait after portrait of real, happy, healthy children. But, however it may have been brought about, one feels essentially this effect of harmony.

Viewing mural decorations in a great public hospital where the beds are occupied, where the quiet orderly institutional life is going on in its clock-work regularity, where one's heart aches at what is seen and heard, where the visitors at the bedsides are often more tragic than the patients themselves—this is very different from strolling through an exhibit of paintings, catalogue in hand, pausing for a careful consideration of each picture that appeals. Indeed, it is almost impossible to imagine even the best of art critics being able to employ his critical faculties in the Burdsal Units of the Indianapolis City Hospital. In such surroundings, the paintings cannot be isolated and considered as pictures. They can only be felt as somehow a part—and a really necessary part—of the stream of life that is flowing steadily through the institution. The thought and skill, even the technique and the genius, that went into the making are forgotten and only the spirit and beauty of the pictures penetrate, a spirit and beauty which one feels must be reaching down to those in the white beds below.

AMERICAN NURSES ARE COMBATING TYPHUS IN SERBIA

Red Cross Mission Finds Natives Using Paper for Surgical Dressings

All the hospitals of Herzegovina and Bosnia which are full of sick and wounded soldiers returned from Austria and many civilians suffering from typhus and many other diseases, are receiving aid from the American Red Cross, which has sent several doctors and nurses there and a large quantity of medicines and clothing. This assistance proved most timely, as a large number of patients were dying daily of septic wounds. All equipment is primitive in the extreme, and, in some cases, paper surgical dressings, unwashed and unsterilized, were employed.

The Red Cross Mission, which is in charge of Captain E. T. Thwaits of Milwaukee, Wis., has relief stations at Ragusa, Spalato, Sarajevo, Mastor, and other points. It is turning its attention to clothing the destitute, caring for the sick, and improving sanitary methods with a view to the prevention of typhus. It is cooperating with the United States Food Famine Commission which is distributing flour and fats to the poor.

THE GOLDEN RULE IN HOSPITALS

"The Patient Before Everything" Is the Slogan of Good Hospitals, Regardless of Other Considerations

A recent meeting of a hospital standardization conference in San Francisco laid down the Golden Rule as *the* golden rule of hospital administration.

"As a social institution," it was decided, according to an account in the San Francisco *Examiner*, "the hospital fills a unique place. The hospital is the host and home for sick guests. No matter how high its standards may be on paper, no matter how up-to-date its laboratories, surgeries, sanitary and sterilization systems, no matter how imposing and beautiful its architecture, no matter how perfect the scientific equipment of the physical plant may be, no matter how expert the methods of economy and management, or how well coordinated its departments have become through the administrative ability of the board and the executive ability of the superintendent, no matter how fine the technique or profound the learning of the staff may be, unless all of these activities are intended, directed, and dedicated to the benefit of the patient and the service of the community—they are mere tinkling cymbals."

NURSES' HOME AT BENNINGTON, VERMONT

Livable, Homelike, and Restful is the Building Which Will House the Nurses of the Henry W. Putnam Memorial Hospital—Every Up-to-Date Convenience Makes It a Real Home

By HARRY LESLIE WALKER, M.A.I.A., Architect

THE main building of the Henry W. Putnam Memorial Hospital in Bennington, Vt., the drawings and description of which were published in the July, 1917, number of THE MODERN HOSPITAL, has lately been completed and opened for service to the public.

A nurses' home has now been planned and will be erected in the near future on a site in the hospital grounds prevously reserved in the general plan for this purpose. This building will be connected with the main hospital building by an underground passageway so that the nurses may pass from one to the other in inclement weather without going out of doors. This passageway will also be used for service pipes and wires between the two buildings.

Fig. 1. Nurses' home for the Henry W. Putnam Memorial Hospital in Bennington, Vermont.

The exterior architecture is of the same character as that of the main building, a simple modified Georgian style having been used. The exterior walls will be of rough brownish-red brick, the trim of white marble and white painted woodwork, and the roof of green Vermont slate.

The author of this building believes that the atmosphere which prevails in a building used for housing the nurses of a hospital should be essentially that of the home, and that this intimate and personable quality should be evident, not only in the planning arrangement, but especially so in all of the furnishings and decorations of the interior of the building. Generally speaking, the young women who follow the profession of nursing come from homes of positive refinement and culture, and during the hours when they are not on duty their surroundings should be as far removed as possible from anything that suggests or maintains the institutional character. One of the most important features in the arrangement of a properly planned nurses' home is that each nurse shall have a separate room, a room all her own, where she may exercise her individual taste in pictures and books, be free from interruptions during her studies, and in her leisure time enjoy the luxury of being alone.

This building will house twenty-three nurses, besides the superintendent of the hospital, who is provided with a private sitting room, bedroom, and bath. In the first story of the building is a large living hall with a fireplace at each end of the room, a reception room, a tea kitchen, a large porch, and seven nurses' rooms with two baths. The tea kitchen opens from the living hall and is connected with the basement by a small service stair. It will provide the nurses with a gas stove, refrigerator, sink and dish case, giving ample facilities for the preparation of luncheon or tea for their friends. The large living hall has a heavy wood-beamed ceiling and paneled walls; the wood is chestnut finished in a soft brown color with a waxed surface, and the room will be furnished with the utmost care and taste to make it livable, homelike, and restful. The prevailing colors will be brown and straw color, with some old blue and red in the rugs and over-draperies at the windows. The porch is enclosed in casement sash and screens, and will be furnished with comfortable wicker furniture, grey wool rugs, and straw-colored fadeless silk hangings at the windows. In the bedrooms throughout the building net curtains will be used at the windows, with cretonne or printed linen over-draperies, and the rugs and furniture will be selected with the principal idea always in mind that the result must be entirely restful and pleasing to the mind of a person of superior taste.

The second story is given up entirely to bedrooms, a corridor partition separating five rooms at one end from the remainder of the story; these rooms are for the use of those who must obtain uninterrupted sleep during the daylight hours. At the opposite end of the second story two rooms and a private bath are cut off from the main corridor, being provided for the isolation cases of contagious illness which may occur in the building. The second story porch is enclosed in sash and screens similar to the one in the first story, and as it enjoys an uninterrupted view

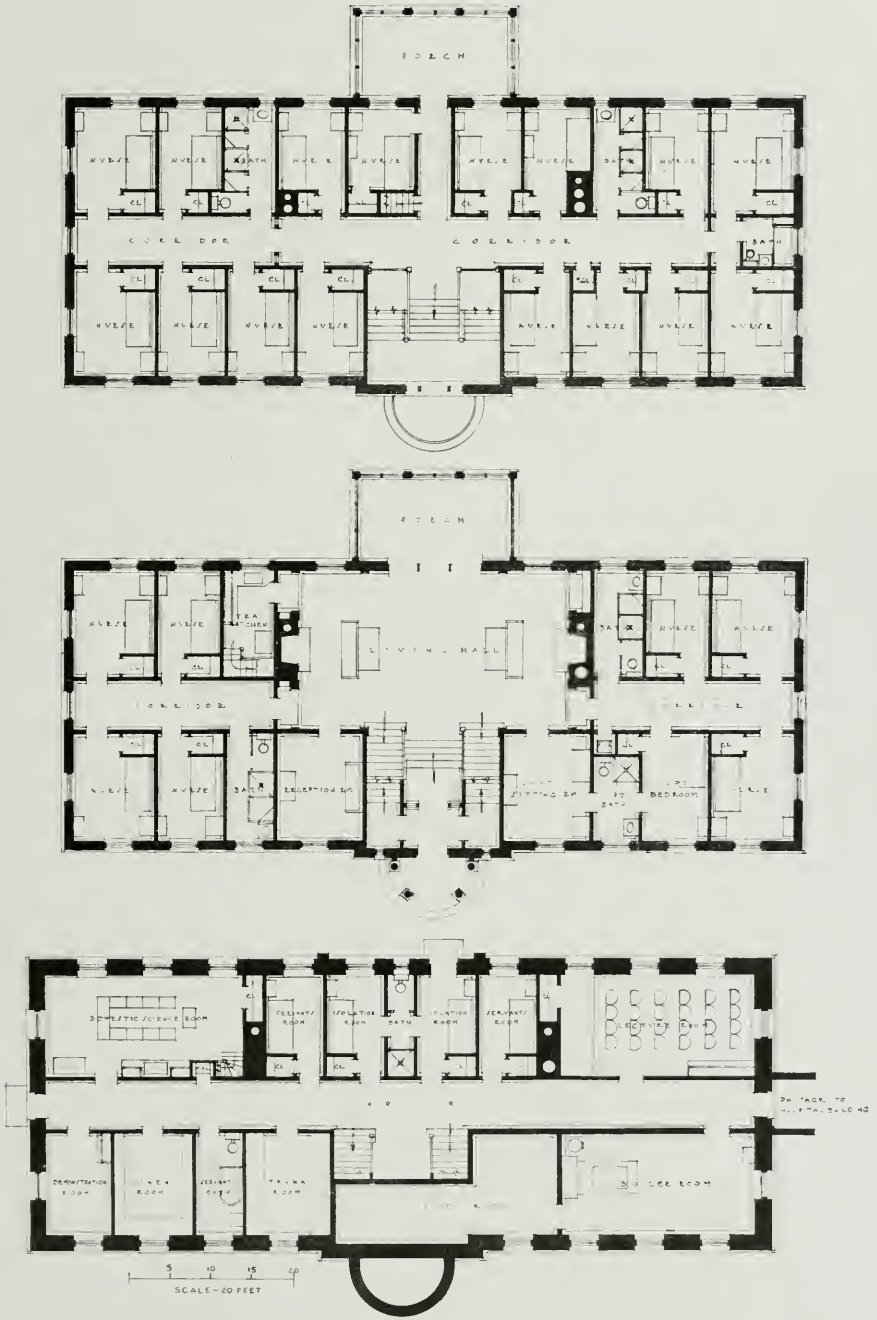


Fig. 2. These three plans show the second story, main floor and basement of the home. Note that the basement contains a lecture room, demonstration room, and domestic science room as well as servants' quarters, linen room, etc. The two fireplaces in the living hall and the isolation rooms on the second floor for daytime sleeping and for sickness carry out the principles of comfort on which this home is built.

for many miles down the beautiful Vermont Valley, it offers an attractive and inspiring resting-place undisturbed by possible visitors.

In the basement are arranged the various necessary utility rooms, a lecture room, domestic science room, and demonstration room for the use of the school. Here are also the maids' rooms and bath, and two additional isolation rooms with bath, provided with a separate outside entrance which may be used in case of emergency.

The building will have all of the usual mechanical equipment of the best and latest type, such as vapor heating, electric lighting, and porcelain plumbing fixtures, making of it a home which is livable and pleasant as well as practical. There are no bath tubs provided for the use of the nurses excepting the one in the isolation bathroom at the end of the second-story corridor. The other bathrooms are furnished with marble partitioned showers, with small dressing rooms attached.

TWO FACTORS IN HOSPITAL STANDARDIZATION*

Vision and Organization—Need for Men to See and Men to Keep Records—Hospital Standardization Cannot Follow Lines of Medical Reform—Publicity Not Desirable

By A. R. WARNER, M.D., Superintendent Lakeside Hospital, Cleveland

WHAT is a hospital and what is it for anyway? There are afflictions of human life which are preventable and infirmities which may be delayed, but the need for medical care to the human family is unquestionable forever. Hospitals are institutions developed by society to meet this situation, to prevent or contribute to the prevention of the preventable, and to the delay of the delayable, and to make the inevitable as comfortable as possible. The fundamental aim of a hospital is, therefore, service to society. Hospitals may benefit and develop special groups of men and women as physicians, nurses, etc., but the fundamental aim will ever be service to society, and all effort must justify itself in this light. Personal benefit to the individuals or groups is not to be considered, except as contribtuory.

One motive for the desire to standardize hospitals is an aim to reduce, to make logical and clear, the present extreme variations in the types of existing institutions and their work; another is a desire to improve the hospitals radically as social institutions; and a third quite general motive is to bring about improvements in the particular departments in which special groups are interested. But we are here today because everyone wants something done about it. All have in mind the example of the work of Abraham Flexner of the Rockefeller Institute and the effect of this work upon medical colleges. A corresponding regeneration of hospitals is dreamed.

Hospital standardization in this sense and degree seems to me to be made up of two distinct parts. The first is theoretical, individual, inspired. Someone must see clearly and be able to make others see the details of the ideal hospital of today and tomorrow, rendering ideal service to society. This service will perpetuate itself and carry on the work outside as well as inside its walls, by training men and women in all the various kinds of work necessary to make the institution ideal and to do effective work in all lines which can contribute to the fundamental purpose of the institution. These details must be seen clearly and then described clearly; they must be reduced to rules and the rules backed by commonsense reasons which are so convincing as to command respect and general allegiance. This is the difficult part of hospital standardization. When we know what a hospital should be, it will be a simple matter to determine if a hospital is that or not, and how much it lacks.

The second part of hospital standardization is the mechanical organization. Someone must determine how nearly the institutions approach these ideal standards, and somewhere this information must be kept available to all those who would know it. This part of hospital standardization can and should be done by the American Hospital Association. This association can develop the necessary organization to measure the various institutions of the country by the rules determined. It can tabulate this information and classify the institutions. It can keep this information on file as well as any organization, and will have a more active incentive to keep it up to date. The American Hospital Association is this year in a period of transition from an association of voluntary members to an association of institutions themselves as primary members, although personal membership is still permitted. This makes it possible to accomplish much which has heretofore been impossible. This association, more than any other, will be interested in the de-

*Read before the conference on hospital standardization at the headquarters of the American Medical Association, Chicago, April 21, 1919.

velopment of hospitals to meet the higher standards, and, for obvious reasons, will have the best opportunities for direct appeals to trustees. There are already before the association plans for the establishment of bureaus to render free service to hospitals in matters of reorganization and improvement. There seems to be nothing in the organization and mechanical part which the American Hospital Association cannot do better and easier than any other association now in existence.

But this part is the easy part. The big problem is in the setting of the standards. It will require all the wisdom which can be secured to study, to comprehend, to analyze modern human physical life, and to advise and determine the type of institution which can render maximum service. In this part of the work every viewpoint must be considered, every type of service weighed and evaluated, not only for the present, but for the future. This seems work for more than one man. The problem is exceedingly complicated in comparison to that of medical education. We cannot hope to find a man who can do for hospitals what Abraham Flexner did for medical colleges. The methods used in the case of medical colleges are not so serviceable in the case of hospitals. It would not suffice simply to study hospitals and make public their shortcomings. There is interest in hospitals from so many active viewpoints that the defects of the institutions are now fairly well known to those directly interested. The public does not know them, and it does not seem wise to attempt or permit the general education of the public in these matters. The results would be too serious. It mattered comparatively little to individuals if the medical colleges did not give sufficient or effective education. Everyone believed that their trusted family doctor had made up these defects in his years of practice, and the matter was to them merely an academic one. This will not be the case, however, if the defects of hospitals are so advertised. The interpretation throughout the country will be that their family and friends who are at the time in hospital care are receiving inadequate or incompetent care. It is difficult to conceive of the worry and heartaches such publicity would bring, especially to the poor to whom hospital service in case of illness is a necessity. Such publicity would also tend to decrease general contributions to hospitals. Hospital standardization cannot proceed along lines analagous to those used by Mr. Flexner.

The object must be to reach and educate hospital trustees. Every trustee learning that his institution is classified D5 instead of A1 will ask why that institution, in which he is so interested and to which he has given so much, is not an A1 hospital. The rules of standardization should be able to tell him the various points which his institution lacks. The result will be a spontaneous determination to get nearer the top by correcting defects. The American Hospital Association, through whom he should learn of the defects, should and will have service bureaus in charge of experts to plan with him the required changes. A limited public will get a certain amount of judicious education in the raising of necessary funds, but the heartaches will be eliminated. To me, rapid progress in general betterment of every hospital in the country seems inevitable, as soon as hospital standards are set and the institutions classified in accordance with them.

The setting of the standards is, however, the important and difficult task. In determining these standards every possible viewpoint should be carefully considered. There seems nothing to propose but a commission or congress made up of representatives who can present the clearest and most accurate interpretation of every viewpoint and which has the interest and determination to carry this project through. This commission may well represent wider fields of interests than are represented by those present and, in addition to those representing every type of work which now is or should be carried on in hospitals which would include the trustees and other forms of management or control, various types of outside viewpoints should be selected for representation.

The Alimentation of the Sick

A scientific commission appointed to examine the question of the alimentation of the sick made the following report, according to an account in the *Policlinico* of Rome.

Milk and milk products form the basis of alimentation for the greater number of the sick and all hospitals should be provided with a sufficient quantity. Condensed milk forms a good substitute. The production of goat's and ass's milk should be encouraged. After milk, eggs are the most valuable food for sick people, considering their nutritive value and digestibility. The question of meat is a complex one, but it is certain that in cachectic and debilitated conditions meat is an indispensable food. Meat broth is not so valuable as is generally supposed. Pastry and rice, as well as leguminous foods, are excellent alimentary articles for the sick and convalescents. Sugar is a most valuable and necessary food material, and in case of great scarcity all sugar should be reserved for the hospitals and the sick people generally. Maltose and saccharose may be used as substitutes. Grape sugar in the form of sterilized grape juice, condensed grape juice, and grape honey is a food material of great importance, not only for its high nutritive quality but also for its exquisite taste. This aliment may, to a certain extent, replace milk. In the distribution of food in all communities, preference should always be given to the hospitals as regards quantity as well as quality.

MUSIC TAKES FIRST PLACE IN RECONSTRUCTION WORK

Games and Sports Are Good but Music is Best for Cheering the Wounded and Soothing Shell-Shocked Minds

By J. W. HARTING, American Red Cross, New York City

FEELING that our returned soldiers are as much entitled to the best guidance in their leisure during convalescence as they are to the most skilled medical attention, the Red Cross has organized a recreation program under the direction of experts. Equipment is being furnished to the hospitals and trained personnel appointed for leadership. Dr. Elbert K. Fretwell, head of the department of recreational leadership, Teachers' College, Columbia University, is in charge of the work, which is under the joint direction of the Surgeon-General's office and the bureau of camp service, department of military relief of the American Red Cross.

The universal love of music affords endless possibilities in the way of objective recreational work. Provided it be encouraged under proper guidance, it may be a valuable factor in reconstruction. It is best not to allow disabled men to indulge in it merely as a recreation, but to divert their interest toward an objective, for too much recreation which is simply of the time-killing variety is a dangerous thing, even for our convalescing heroes.

In the last decade or two educators have stressed the necessity for using leisure time to the best advantage. They are not trying to disprove the old saw to the effect that all work and no play makes Jack a dull boy. They merely want to help Jack to get greater enjoyment out of his play and to store up unconsciously treasure for himself in the way of character, principles, and proper habits of mind.

Fig. 1. "There are smiles that make me happy—"

Sports of all kinds constitute the finest recreation in the world. They are enjoyable and yet at the same time inculcate sound principles for

Fig. 2. Doughboys and partners taken by surprise. The two one-armed men in the foreground are among the best and merriest of the dancers.

which a man is better all his life. A fair sportsman is likely to be an honest business man. The man who is generous to his opponent in the field is not the one we expect to resort to cut-throat competition in the commercial world. A good loser is respected in any game in life.

Music, in the same way, has a distinct place as an educational factor in any organized recreational program, for frequently it is the spark which kindles those higher impulses in men which, sympathetically fostered, develop into the big, noble qualities. No matter what the degree of the man's incapacity, he can enjoy music and derive benefit from it. In cases of nervous disorders brought about through horrors witnessed or from shell shock, it is frequently the one medium through which he can be reached.

An instance of this sort is illustrated by an excerpt from the letter of a Red Cross field director to the bureau of musical activities:

> Not long ago a vocalist and a reader were sent to us for an entertainment. They were booked for the Red Cross house in the evening and for ward work in the afternoon. I went with them to the insane ward. One patient was counting over his fingers in an intensive sort of way, talking incoherently, and all the while neither the doctor in charge nor I could influence him to stop while the reader was telling her stories. I suggested that the vocalist be called upon. She responded with a sweet melodious song and the babbling stopped almost instantly. At first there was nothing but silence; then I seemed to see an interest creep into his being. A healing influence had reached him by virtue of the music.

Such invisible wounds are sometimes harder to heal than the shattered limb. They have to be reached by subtle means, among which there is nothing more potent than music. It is like the fairy fingers which touch not only the ears but the eyes, giving back to the stunned mind of the man a glimpse of the world that was—and still remains for him. In one instance at least it was the fairy hand which clasped a wasted, material one and slowly, ever so gently, drew its owner out of the valley of the shadow into God's own sunshine again.

The boy from the mountains was slowly dying. One day a Red Cross field worker brought a trio of mountain boys into his ward with a banjo and a guitar to entertain the patients. The lilt of the merry folk song seemed to fan the flickering life spark that had gone beyond the reach of material aids.

The banjo players came again. The boy's interest grew stronger. Finally he confided to the nurse that he "useter pick one of them" and that he would like to try his hand. It was the first desire he had expressed for anything. The banjo

Fig. 3. The ballroom of a convalescent hospital. Flags of all the nations and a real jazz band make it a festive affair.

was provided by the Red Cross and the boy gradually got a new grip upon himself.

The psychological value of music is incalculable and its use in creating an objective through recreation is hardly of less worth. Many men in the hospitals show a considerable degree of talent. There are some who have had elementary instruction, but have never, since their entrance into the business world, had a chance for further study. If, during their convalescence, they can be given the opportunity to increase that knowledge and develop what talent they may have, the new objective is a veritable life saver to them. The danger of aimless leisure lies in the habit of mind it engenders.

If the men are allowed to organize their own orchestras and produce no music other than that of the "jazz" variety, they will derive little actual

Fig. 4. Who's who in the world of music.

benefit other than the passing amusement. With an organized program, however, such as the Red Cross has planned, education and entertainment are combined. The Red Cross is providing instruments of all descriptions and is enlisting the interest of professional musicians who will volunteer their services for instruction.

The recreation program includes provision for games and sports of all sorts in addition to entertainments and concerts by professionals. But throughout the entire work the foremost thought in mind is the improvement of the spirits and morale of the convalescing soldier.

The description of the recreation hall in any army hospital suggests a mountain hotel interior on a rainy afternoon. The background is much the same, with its huge open fireplace, crackling logs, long tables littered with magazines and books, other smaller tables over which faithful correspondents bend, couples and quartets absorbed in a game of chess or pinochle, the group singing around the piano—even the rain may be beating against the casement windows; the assemblage, however, is of a different kind and different sex from that which gathered in the prosaic ante-bellum stronghold.

The rocking and "knocking" brigade is nowhere in evidence. The easy chairs are filled with khaki in varying degrees of deshabille. From the group at the piano comes a throaty, masculine effort at harmony. Over all, giving significance to the scene, hangs "Old Glory" flanked by the flags of the allies interspersed with the banners of the Red Cross.

It was the stormiest afternoon of this spring when one of the hospitals was visited. But did our boys from overseas let their moods take on the complexion of the weather? Just because the press agent of the Hindenburg "show" aired it about that the line was "impregnable," did they right-about-face? If the weather man peeped in that afternoon he would be a firm believer in the

old rhyme, "Laugh and the world laughs with you; weep and you weep alone." Certainly nobody at that hospital lost any of the joy of life because of a grouch.

It is a way our returned fighters have of scorning little superficialities like the weather, and they take the same attitude toward crutches, slings, bandages of all descriptions, and other little spring-1919 novelties in vogue this season at base hospitals. While the boys can extort a little music from anything that has keys or strings, records or rolls, they are going to be happy.

THE CHILDREN'S HEART HOSPITAL AT BROOKLINE, MASSACHUSETTS

Fills a Need Not Met by Ordinary Convalescent Homes—Quiet and Care Provided for Children Recovering from Acute Heart Disease

By JOHN LOVETT MORSE, M.D., Chief of Staff, Children's Heart Hospital, Brookline

THERE has been for a long time a very urgent need for places where children of the poorer classes convalescing from acute heart disease could receive proper care. These children require rest in bed for several months after the most acute stage of the disease has passed and supervision for many months longer after they are up. The general hospitals cannot give this prolonged care, because their beds are required for children with acute diseases. The ordinary convalescent home is not suitable for these patients, because the children convalescing from other acute diseases are up and about and disturb these convalescents, who should be kept quiet. They cannot get the proper attention in their homes, partly because of the other children in the family and the excitement around them, partly because of the inability of their parents to understand what rest really means or to appreciate its importance, and partly because of the inability of the average parents in this class properly to control their children.

Photograph by Bachrach
Fig. 1. The Children's Heart Hospital is a large private house, remodeled to meet the needs of a hospital. Spacious grounds provide for an abundance of light and air.

The Children's Heart Hospital was established in 1913 to meet the needs of these children and to give them the rest and attention which they so urgently require. It was founded by Mrs. Carl P. Dennett, who has entirely supported it from the beginning.

The present house at 137 Englewood Avenue, Brookline, Mass., was acquired in 1915. This house is beautifully situated on a hill in a quiet section of the town. It was formerly a large private house, but it has been remodeled to meet the needs of the hospital. It is surrounded by spacious grounds, beautifully laid out. It is easy, therefore, to give the children an abundance of fresh air and sunlight and to keep them comfortable both summer and winter. There are two wards of ten beds each. A large piazza is connected with each ward, so that when the weather permits the children can be taken out of doors, and a large glass room on the lower floor provides a place where the children can be taken in stormy or extremely cold weather. There is, in addition, a small isolation ward, and a separate room for any child who is acutely ill. A small laboratory has been installed, which is sufficient to care for all ordinary clinical work; there is, also, a dental chair with a complete dental outfit.

No children are admitted except those convalescing from acute endocarditis. It is not the intention to take children with acute endocarditis

Photograph by Bachrach
Fig. 2. In the sun room where the children who are able to be around find quiet entertainment which keeps them happy and contented.

Photograph by Bachrach

Fig. 3. The piazza of an upper ward. Here the children are kept in absolute quiet until they are able to be up. The out-doors surroundings help to keep them from restlessness.

until they have passed the febrile stage. No cases suffering from chronic valvular disease of the heart, whether compensated or not, are admitted. It is required, as far as is possible, that the children have their teeth put in good condition and diseased tonsils and adenoids removed before they are admitted to the hospital. If this has not been done, however, the teeth are put in order by the dentist of the hospital and the tonsils and adenoids are removed at the Forsyth Dental Infirmary by the laryngologist, who is connected with both institutions. In this way the foci of infection are, in most instances, eliminated.

The patients are kept flat in bed until they are able to begin to get up. They are then gradually moved along until they are able to be up and about without injury to their hearts. They are then returned for further care to the institutions or physicians from whom they came.

The staff consists of a matron and two nurses. A visit is made at least once a week by a physician. He makes more frequent visits if there is any special child demanding attention. An undergraduate medical student makes more frequent visits, does the laboratory work, and keeps the records.

It has not been found difficult to keep the children happy and amused, neither has it been found difficult to keep them quiet. The newcomers find that the other children are quiet and quickly accept the conditions. Simple amusements are provided and, as the children improve, the amount of exercise they are allowed to take is increased. The many hours which they spend out of doors also keep them happy and contented. Thus far no attempt has been made to provide instruction, but it is hoped that something of this sort may be arranged for in the future.

The results thus far obtained have been most encouraging. A certain number of the children have been discharged well, while the damage to the heart has been so limited in the vast majority of the others that they have been discharged with hearts but little impaired functionally and strong enough to meet the ordinary demands of life. The number of patients thus far treated has, of course, been rather limited, because the children spend a number of months, and sometimes many months, in the hospital. This experiment, if it can be called an experiment when the results could have been so certainly anticipated, has been most successful. It is hoped that it can enlarge its work in the future and that other similar institutions for these unfortunate children will be established.

Keeping Up With the Doughboy

Mobile hospitals, portable kitchens, rolling canteens—it sometimes taxed the ingenuity of the agencies of relief to keep up with our troops, but the army can not get in so tight a place that the Red Cross can not follow it.

One of the most interesting phases of their work is the mobile hospital, which is taken from one battlefield to another. Auto trucks carry complete surgical equipment to

A hot drink on a cold day or a cold drink on a hot day is one of the little things that help to make life more like home.

any part of the front, and their work is supplemented by portable kitchens, disinfecting plants, and dental ambulances. The dental ambulances have all the latest instruments that may be found in an American dental office.

"Most interesting," in this case, however, is probably spoken from the point of view of the wounded soldier or of those who serve him. To the normal, healthy doughboy the canteens, which spring up like mushrooms wherever they are needed, are probably one of the most interesting phases of the war.

Good Use for a Kitchen Cabinet

A white enamel kitchen cabinet makes a good substitute for a case for medicines and dressings in a hospital in which the more expensive and up-to-date cabinet could not be afforded.

DEVELOPMENT OF THE HOSPITAL WARD UNIT OF THE UNITED STATES ARMY

Changes Which Took Place After We Entered the War—Increasing Attention to Light and Air—Adequate Provisions for the Care of Contagious Disease

By EDWARD F. STEVENS, Architect, Boston

WHEN the United States entered the world war in 1917, there existed few, if any, large army hospital units in this country, and the few which existed had not received the careful study and planning accorded the civilian hospitals and were hardly comparable with the army hospitals of other nations.

When the government established the sixteen cantonments and the sixteen National Guard camps, hospitals for the accommodation of approximately one thousand beds each were designed by the army officers in charge of this work at the Surgeon-General's office. These groups originally comprised from sixty to seventy buildings, but this number was greatly augmented later by the addition of convalescent units.

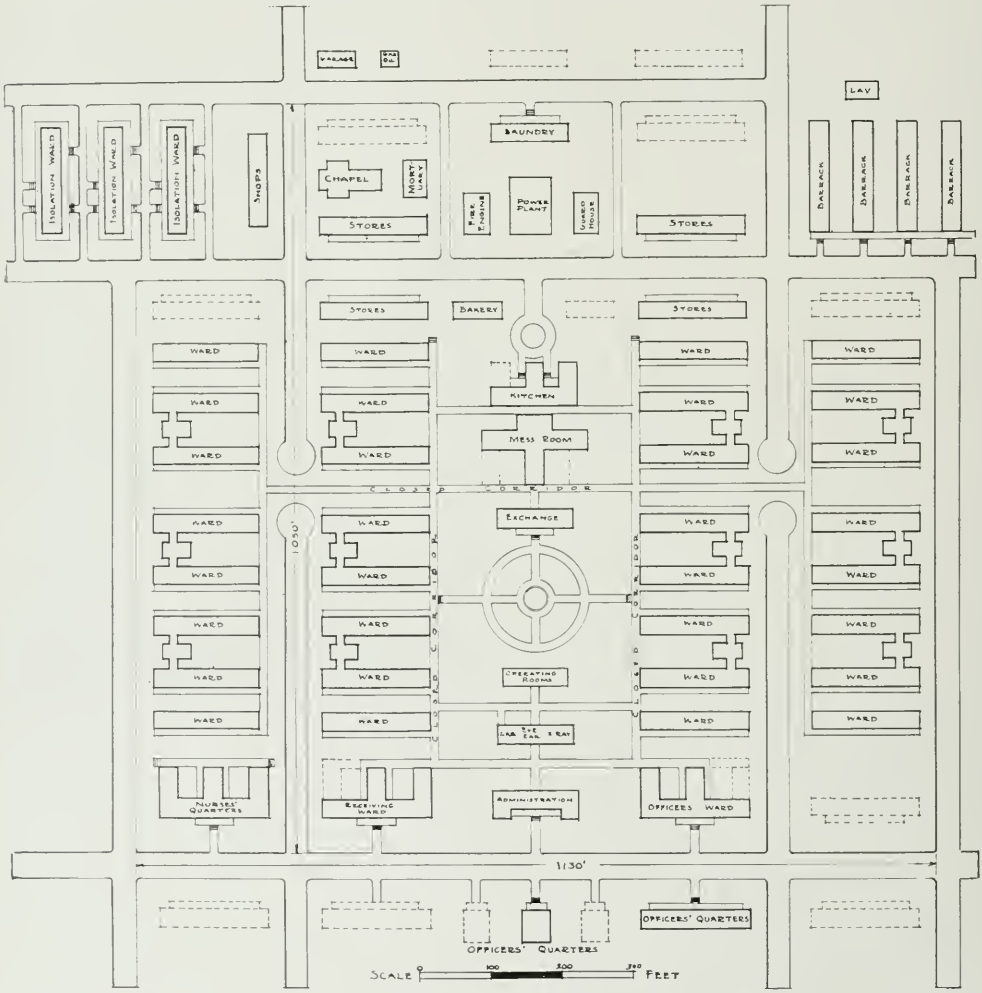


Fig. 1. Plan for base and cantonment hospital, as first presented by the Surgeon-General's Office (May, 1917).

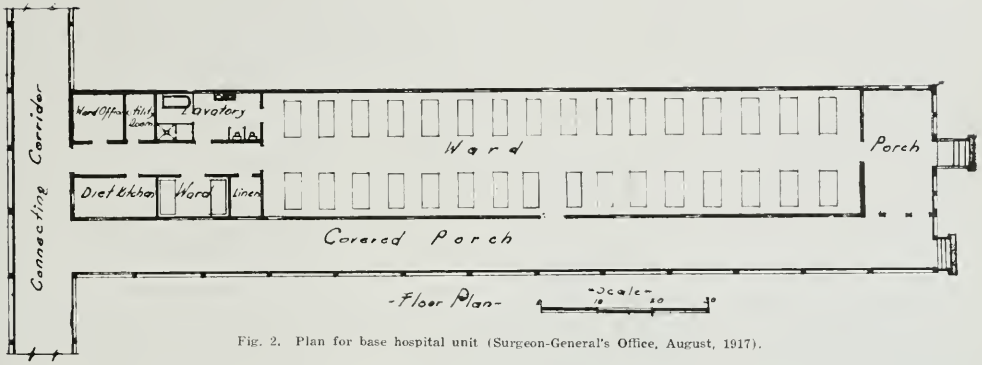


Fig. 2. Plan for base hospital unit (Surgeon-General's Office, August, 1917).

In this discussion, the general grouping and the portion occupied by the sick soldiers—the ward unit—will be considered; the mechanical plant, the operating unit, and the housing for staff and orderlies will not be taken up.

It should be remembered that at the time the United States entered the war the French had more than six hundred thousand and the British nearly one million beds in army hospitals, from which it was possible to find precedents as to the plan best adapted to the needs of the United States. In the French army hospitals, in particular, there had been developed an economical and practical solution of the ward unit, at least.

These United States hospital buildings just referred to, like the cantonment barracks, were built of wood, with wooden foundations, and in a temporary manner. With but few exceptions the buildings were only one story in height and in almost every case they were connected with

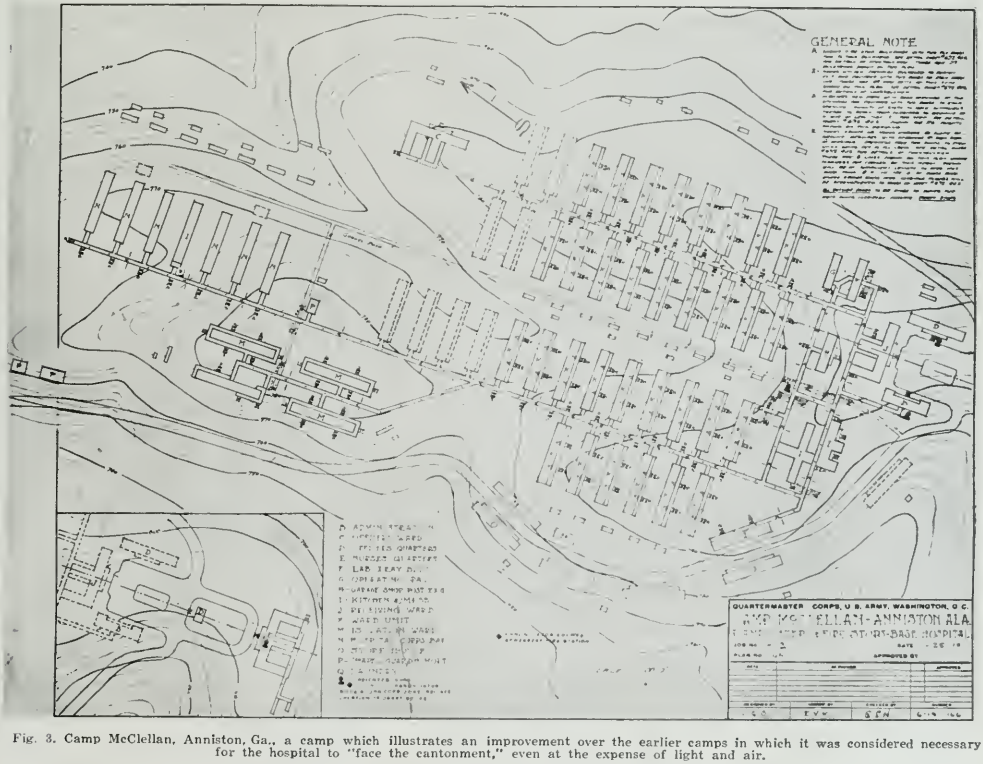


Fig. 3. Camp McClellan, Anniston, Ga., a camp which illustrates an improvement over the earlier camps in which it was considered necessary for the hospital to "face the cantonment," even at the expense of light and air.

each other and with the other units by covered corridors.

The ward unit plans, as first presented by the Surgeon-General's office, contemplated the group-

feet, or 12.3 per cent of the wall surface. A 12-foot balcony extended along one side, a feature which was a decided advantage in the southern climate and for treating certain dis-

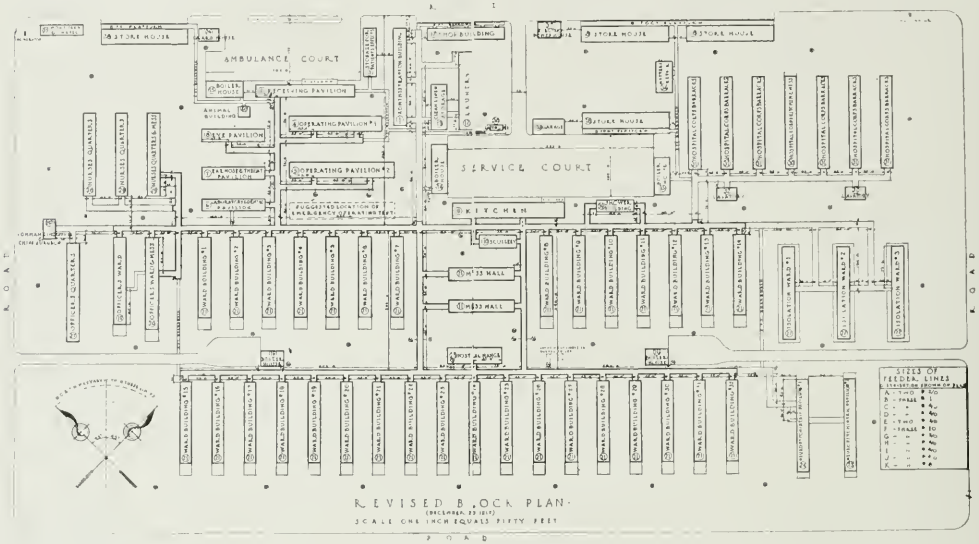


Fig. 4. General plan for overseas unit adopted under the direction of Chief of Engineers, U. S. A. (December 20, 1919). The ground covered by this unit is 1550 feet by 750.

ing of the ward buildings in pairs, with the toilets placed between the wards at one end and joined with connecting corridors between the buildings at the other end, as shown in Figure 1. Before the plans were issued for erection, it was realized that enclosing the space between the wards not only cut out light and air, but afforded an extra fire menace and inaccessible pocket, and this plan was abandoned. In some of the wards, however, this form of between-ward toilet was used at the corridor end, but for the greater part the single ward unit was adopted (Fig. 2).

eases, but which greatly reduced the air and sunlight for the ward itself.

As a very large proportion of army hospital patients are ambulatory, it was found to be economy to build additional two-story wards for these men, as well as for convalescents. Each of these units consisted of four wards or dormitories, two day rooms, toilets, and balconies, but contained no provision for the service of food.

While the orienting of the wards on the site is almost as important as the plan, the general thought of the officer in charge of the planning

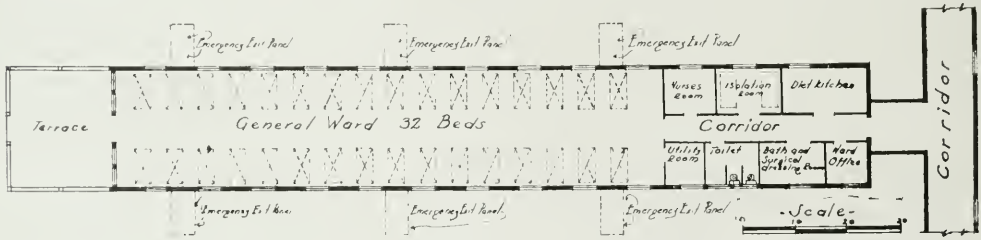


Fig. 5. Ward unit of the overseas hospital, fabricated in the United States and shipped, ready to erect.

This plan provided for thirty-two patients in one ward and a quiet room for two patients, with diet kitchen, office, toilet, linen room, etc. Each ward had eighteen windows, a total of 278 square

of the hospitals was that "the hospital must face the cantonment," and the question of sunlight and air was largely disregarded. One noteworthy example, however, was at Camp McClellan, An-

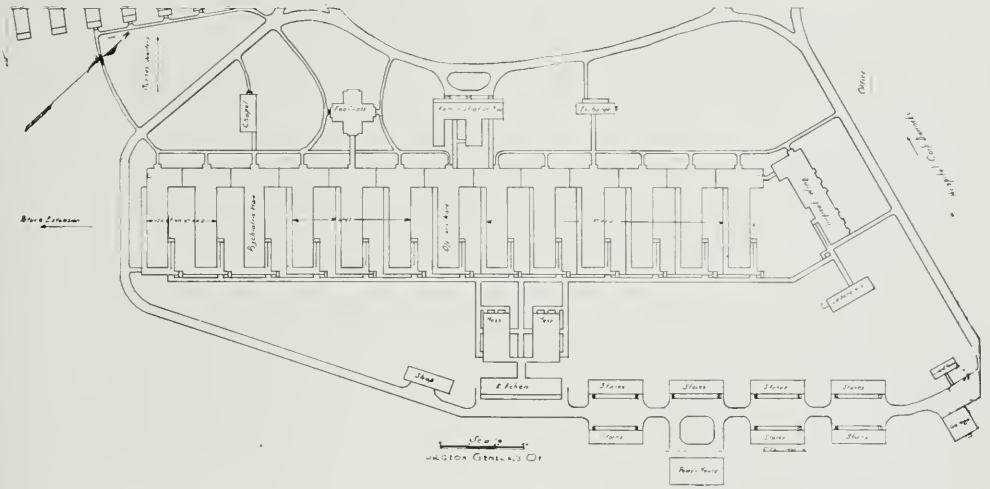


Fig. 6. General plan, base hospital, Camp Knox, Ky., illustrating the new head-house type of hospital, developed to provide a more concentrated plan and one easier of administration (Surgeon-General's Office, October 10, 1918).

niston, Ala., where the grouping and orientation were vastly improved. (See Figure 3) True it was with the general plan (Fig. 1) that in whichever direction the hospital faced, 50 per cent of the ward would receive the maximum amount of sunlight and air, at the expense of the other 50 per cent. Of course, it was necessary in the thirty to forty groups to erect the buildings on the sites selected, and it is to be surmised that few "faced the cantonments."

The planning of our overseas hospital units then followed, and these plans were developed under the direction of the Chief of Engineers, U. S. A. A new general plan was adopted, so arranged that the maximum amount of sunlight and air would be obtained for all wards or patients' buildings (Fig. 4) and that the administrative portion would be centralized.[1]

As the overseas hospitals were designed to be fabricated at a distance and shipped ready to erect, the buildings were confined to certain standard widths. The ward unit, however (Fig. 5), was designed to obtain the maximum amount of light and air for the patient.

A standard of thirty-two beds was provided, and the general utilities were made similar to the

1. The planning of these units was placed in the hands of Mr. Charles Butler, who had served under the French Government in constructing army hospitals, and of the writer.

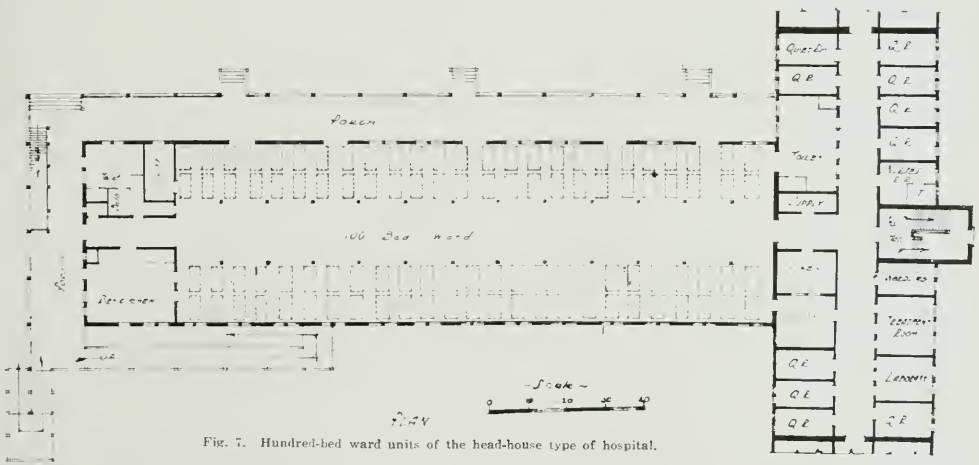


Fig. 7. Hundred-bed ward units of the head-house type of hospital.

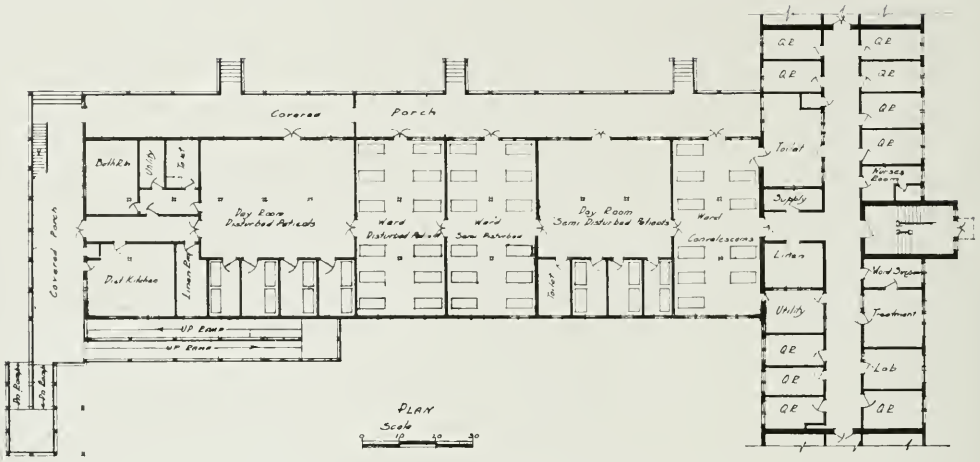


Fig. 8. Psychiatric ward unit, capable of conversion into general ward (Surgeon-General's Office, August 21, 1919).

plans made by the Surgeon-General's office, but the method of lighting and ventilating was improved by increased window sizes, so that 24.5 per cent of the wall surface was glass and capable of being opened 100 per cent of the glass area. The airing balcony was placed at the south end, leaving the sides free for light and air. These wards were to run approximately north-south, with the airing balcony at the south, leaving a space between buildings of 33 feet.

Removable panels forming ramps gave extra provision for emergency exits, by which the patients could be speedily removed.

Double floors, walls, and roofs insured protection from heat and cold.

While many slight changes were made in the Surgeon-General's ward unit running from K-1 to K-30, the same general scheme prevailed for the army hospitals in this country, until the so-called "head-house" type of hospital was developed. This was brought about by the desire for a more concentrated plan, one covering less area and consequently easier of administration, and allowing for greatly increased capacity.

This general plan (Fig. 6) called for buildings practically all to be two stories in height, the ward buildings being pavilions joined to the head-house. Each ward unit consisted of two 100-bed wards, twenty single or quiet rooms, toilets, diet kitchens, etc. (Fig. 7). The wards are 11 feet

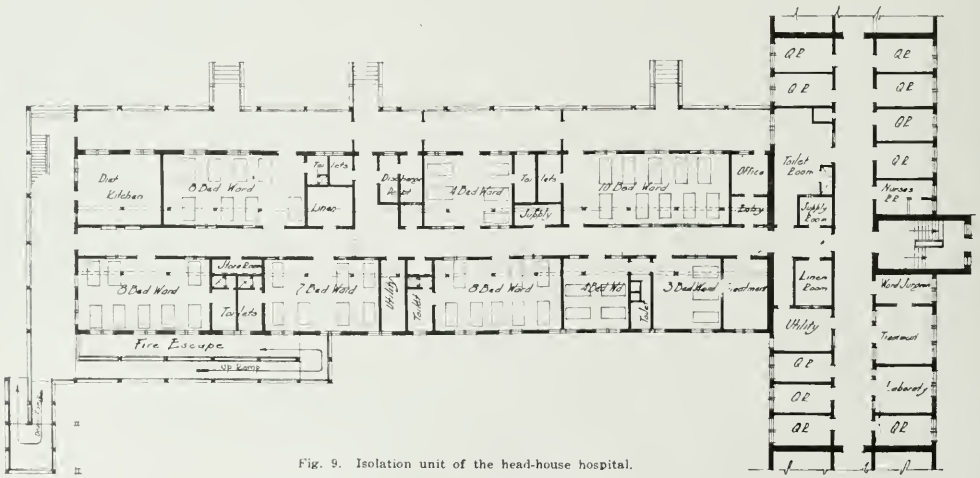


Fig. 9. Isolation unit of the head-house hospital.

in the clear height, 48 feet wide, with beds arranged in four files. There are twenty-six double windows on each side, taking up 23 per cent of wall area. The heads of the windows were placed 2 feet 5 inches from the ceiling to the sash, and

The orientation generally is good, as all wards run north-south, but the precedent here established by the government of placing one hundred sick soldiers in one room or ward, with but 3 feet between the beds and without subdivisions,

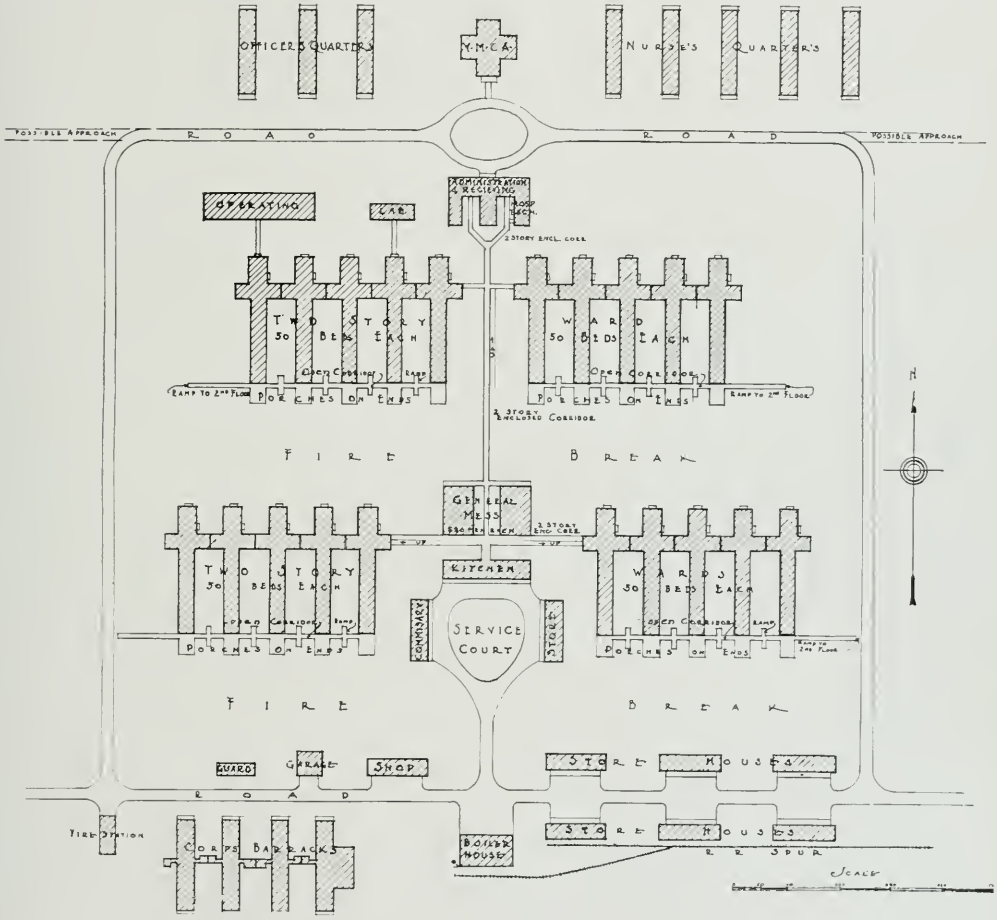


Fig. 10. General block plan for a 2,000-bed hospital, proposed by comm ittee of three on army hospital plans (November, 1918).

the cubical contents were minimized by using a flat instead of a sloped ceiling for the second story. The light is reduced by a wide side airing balcony and by ramps on the opposite side from the balconies. A gallery connecting the pavilions on the south affords a means of escape in case of fire and a means for the ambulatory patients to reach mess in pleasant weather. The private or quiet rooms are placed on a corridor which is the main artery of communications and for supplies and which in some cases is over 1,000 feet long, lighted by direct light only at the ends.

is one which civilian hospitals would not dare to follow.

The psychiatric ward unit, planned to occupy the same area and to be capable of conversion into a general ward, is shown here (Fig. 8). While the subdivisions would seem well proportioned, the difficulty of administration is apparent from the fact that in passing from the main corridor to the south exit, one must pass through no less than eight doors, which must be unlocked and locked after every passage. This could have been avoided by a continuous corridor.

In the isolation unit of the type (Fig. 9), there would seem to be an insufficient number of isolation rooms, and the main toilet, having little use in this unit, would seem unnecessarily large. The

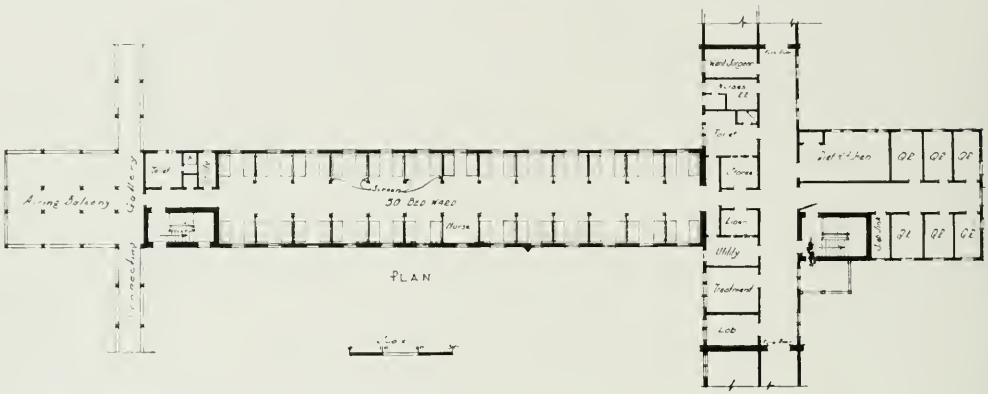


Fig. 11. The new general plan provided for wards of fifty beds instead of one hundred.

wide airing balcony, too, could safely be used only by patients suffering from the same disease.

Numerous types of wards for the care of tuberculosis were developed, but only two are here described. One of these consisted of a double row of beds, facing an open south front; another, built on the so-called "King plan," was known as the "shack" arrangement. While in the double plan the patient may be protected from his neighbor by the screens which are "staggered" to prevent one patient from being placed directly in front of another, the back row, nevertheless, would receive the minimum benefit of the "cure" because of the blocking up of light and air by the front row and the impracticability of moving the beds into the sun. In the shack plan, however, this objection does not occur, and the patient is protected from his neighbor by the screen and may have his bed moved into the sun at will. The day room and dressing-room are common to the two wards and are essential to the comfort and well-being of the patients.

After this later head-house type of ward buildings was well under way and materials ordered, the Assistant Secretary of War in October appointed a committee of three hospital architects[2] to review and offer constructive criticism of the existing and proposed hospital buildings.

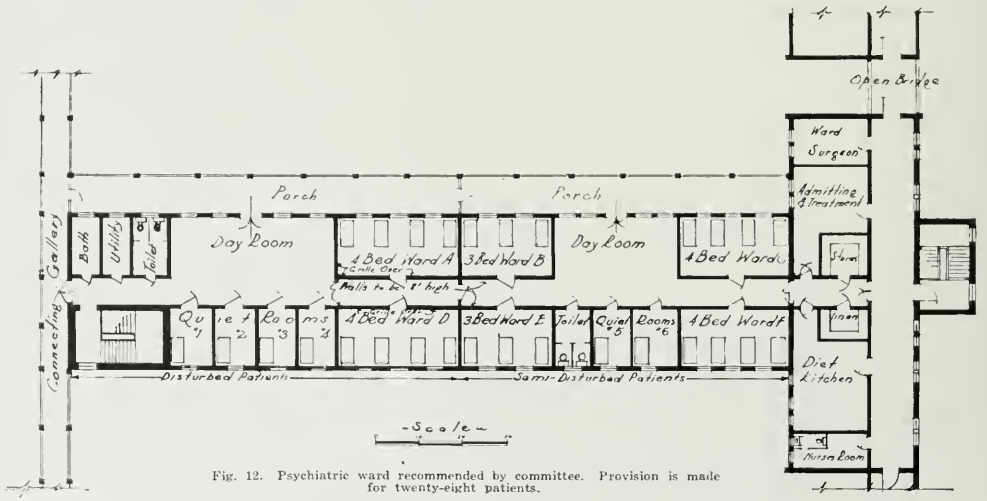


Fig. 12. Psychiatric ward recommended by committee. Provision is made for twenty-eight patients.

2. Consisting of Mr. Charles Butler, Mr. L. M. Franklin (of York & Sawyer), and the writer.

After a careful study of all the plans for hospitals so far developed in the Surgeon-General's office and after a further study of existing buildings erected, in use, and in course of erection, this committee realized that to provide for large units of from one to two thousand patients, some form of two-story buildings must be used in order to economize both in ground area and in cost of administration and at the same time to afford sufficient protection to the patient and prevent the spread of contagion. The general plan (Fig. 10) shows how the ward units attached to the general

Fireproof stairs at either end of the unit and the ramp at either end of the second-story gallery afford ample fire exits.

In the psychiatric ward recommended by the committee (Fig. 12), provision was made for subdivisions similar to those adopted in the wards designed by the Surgeon-General's office, but with ready access to one section from another, and with the ward divided for disturbed and semi-disturbed patients, with a separate day room for each. In the disturbed portion, four quiet rooms for the violent patients were provided, together

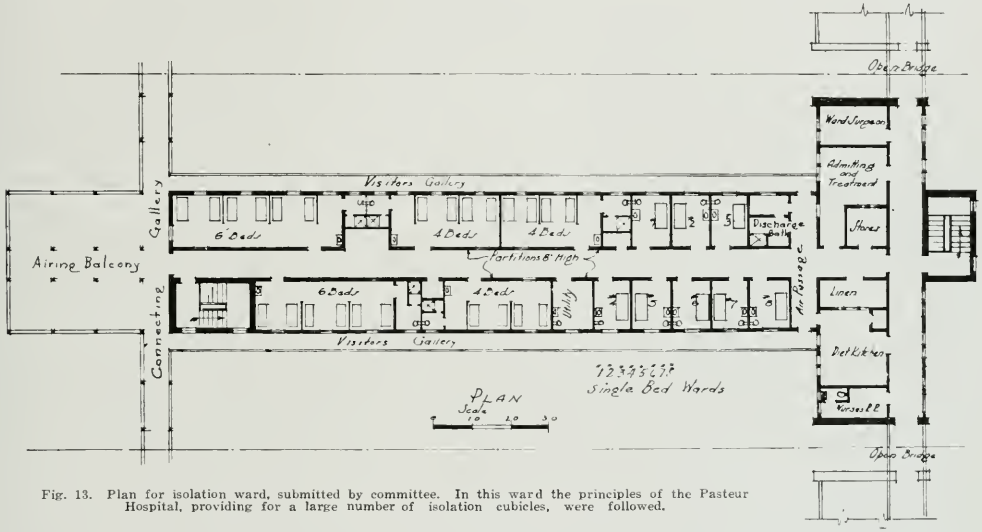


Fig. 13. Plan for isolation ward, submitted by committee. In this ward the principles of the Pasteur Hospital, providing for a large number of isolation cubicles, were followed.

corridors are grouped around the central buildings.

The new ward unit (Fig. 11) was designed, providing for fifty beds in each ward instead of one hundred. The utilities were placed on the south of the through corridor, which is lighted abundantly on the north. The ward is 28 feet wide, with one file of beds on either side of the center. The side is 27.6 per cent glass, which is capable of opening 100 per cent for air; the windows, being carried to the ceiling, afford the maximum ventilation. A low screen is placed between each two beds, protecting one patient from another. No sunlight is cut off on east or west, but an ample balcony is provided on the south. A gallery connecting wards at the south end and ramps at either end of the group affords an exit in case of fire and a quick way to reach the mess hall. The quiet rooms are in an extension at the north of the connecting corridor, with east and west exposure. The corridor, amply lighted on the north, connects with all departments.

with two four-bed wards; in the semi-disturbed section, two four-bed and two three-bed wards and two quiet rooms were planned.

The unit is so arranged that in passing from the diet kitchen to the extreme south end of the building, it is necessary to pass through but two doors, each ward being separated from the main corridor. Ventilation is secured by making all the walls of the interior partitions but eight feet high; in the disturbed portion, the walls are continued by substantial grilles. Doors into the admitting and treatment department, the diet kitchen, the nurses' room, and the ward surgeon's room open from the main corridor.

Provision is made for limited continuous bath, as from observation and consultation with the specialists it was found that one bath for each unit would be sufficient in the army hospitals.

In the isolation plans submitted by the committee (Fig. 13), the principles of the Pasteur Hospital were recognized; a large number of isolation cubicles were constructed, each cubicle pro-

vided with sink and watercloset. In four- and six-bed wards, each two beds are separated from the others by a low screen to minimize the possibility of cross-infection.

Narrow open galleries surrounding the building make observation and communication with patients possible from out-of-doors, making practicable the visiting of friends with the minimum danger of contagion. Fireproof stairways connect the airing balconies, and the communication balconies are the same as in the general ward plans.

Another type of overseas ward unit built at Sarisbury, England, from the plans of Arnold Thornley, F.R.I.B.A., for the American Red Cross and for our sick soldiers, presents some new thoughts in the bed arrangement, at least.

This hospital, when completed, will accommodate two thousand beds. Each unit consists of four wards of seventy-eight beds each and a common bath and toilet "block." These toilet and bath blocks, located equidistant from the wards, will be an economy in construction and cubing if they prove to give enough capacity for the needs. The wards are 40 feet wide, with high walls and a ceiling reaching to the roof line, which is crowned by a monitor.

The bed arrangement is unique. While there are four rows of beds, the two inner rows are kept away from each other by a 5-foot permanent screen running down the center of the ward, really dividing the ward into two thirty-nine-bed units; for supervision, however, the attendant standing at the end of the ward, obtains a complete view of the entire ward.

As these wards are but one-story high with numerous exits, the lack of airing balconies may not be noticed. The window spacing (every 6 feet with 3-foot windows) should give plenty of light if carried nearer the ceiling.

The connecting corridors are ten feet wide.

While the "double-ended" ward can obtain only the average amount of sun, there will be a maximum amount of sun on one side if it is oriented east and west. The lack of sufficient utilities and the absence of quiet rooms seem to be the greatest defect in this plan.

These units are built of "cinder brick," a permanent form of construction, and present an attractive appearance.

A HINGED WINDOW FOR THE USE OF HOSPITALS

Designed for War Conditions, It Is Equally Effective in Peace—Deflects the Air Toward the Ceiling and Provides Ventilation Without Drafts—Small Lower Sash Provides Access to Screens and Awnings

By CHARLES BUTLER, Architect, New York City

THE hinged window, of which large and small scale details are shown herewith, is the result of considerable experiment, and is offered to hospital people as a suggestion of real practical value.

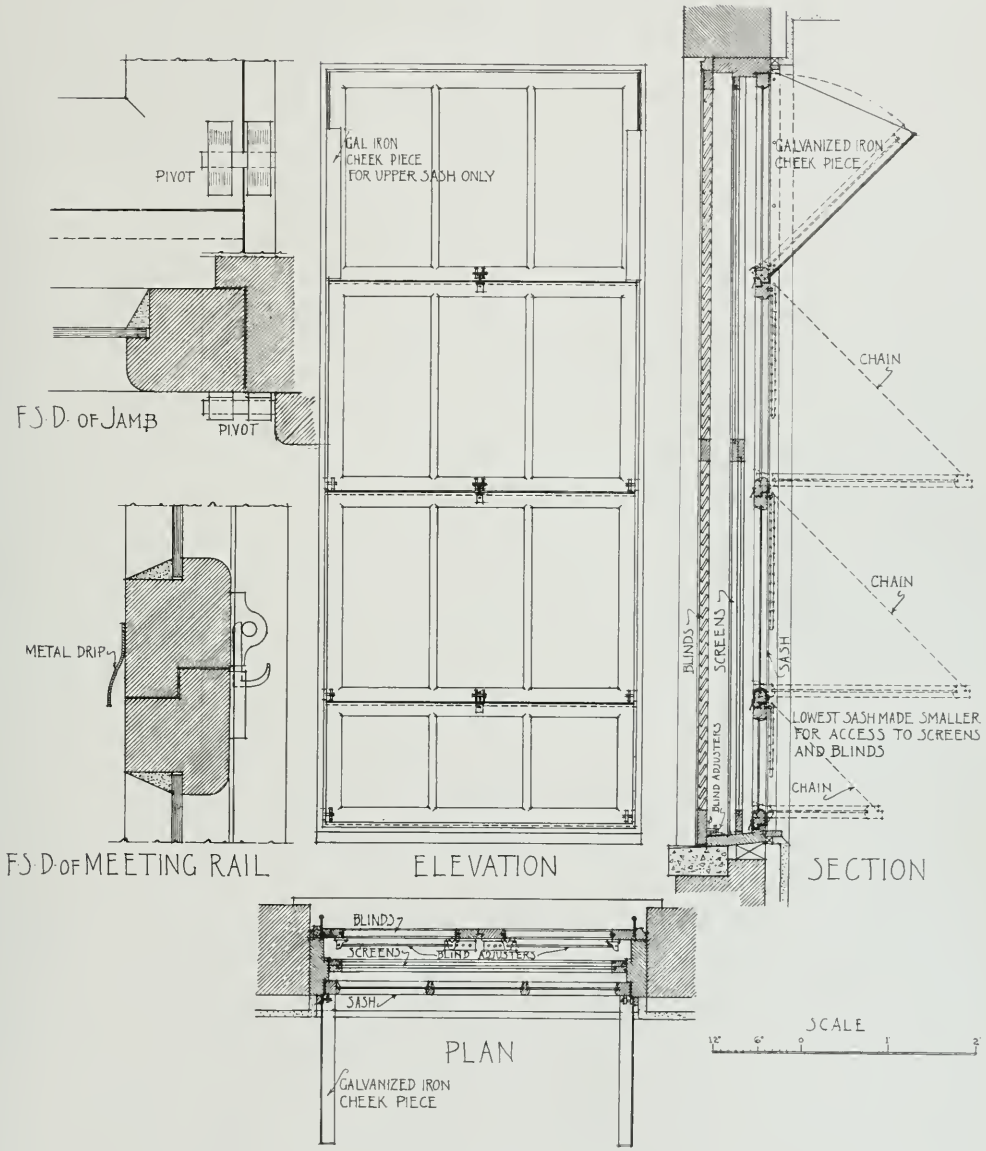
My first experience with this type of window was in the British Red Cross, St. John's Guild Hospital at Etaples, France. In this hospital the upper sash, only, opens, an arrangement which is feasible in the damp, cold climate of the French coast.

The especial advantage of the hinged sash swinging in, with its cheek pieces at either side, is that the air is deflected toward the ceiling so that a bed may be placed directly under the window. This is a very valuable feature in a war hospital ward, where beds often crowd together; a light frame covered with cheesecloth set on top of the opening is an added protection from overdrafts.

When the War Demonstration Hospital was planned at the Rockefeller Institute in New York, the same type of window was used, but each sash was arranged to open, to meet the requirements of American summer weather. Incidentally, the same type of window was adopted for doctors' and nurses' quarters, and, after a year of service with temperatures ranging from 102 degrees above to 13 degrees below zero, the army officer in charge stated to the writer that he approved of this type of window, not only for wards but also for all other rooms in the hospital.

One disadvantage of the window as it was originally designed was the difficulty of getting at outside blinds and mosquito screens, as when the lower sash was opened it extended so far into the room that it made it difficult to reach them from inside. It was therefore decided to place a small sash at the bottom of the window to allow access to blind adjusters or awning cleats and mosquito screens. This small sash can also be used when slightly open as a bottom ventilator.

As will be noted on the drawing, the hardware is of the simplest sort, consisting, as it does, of two friction hinges which cost only a few cents each; a snap catch on the lower sash, which en-



Plan of hinged window for hospital use

gages a bar on the sash above; and at each side of each sash a chain long enough to let the sash swing in to a horizontal position, but with a screw hook at each side into which a link of the chain may be hooked when it is desired to open the window part way only.

This general type of sash was employed in the new naval hospital at the New York navy yard, a permanent structure, where the thickness of the walls obviated the necessity of cheek pieces.

I believe that this window, while originally designed for war conditions, will give equally good results when applied to permanent hospital construction.

CONSOLIDATION OF HOSPITAL SERVICES*

Centralization Especially Valuable in Training of Nurses—Dangers of Too Much Red Tape in Welfare Work—All Services Better for More Cooperation

By LOUIS J. FRANK, Superintendent Beth Israel Hospital, New York City

THE hospital is not, or should not be, an institution which acts without coordination with the public, and stands apart as a place of punishment for those who have transgressed the laws of nature, either through ignorance or guilt, just as the gaol punishes those who have broken man-made laws. It is the present tendency to make even penal institutes places of moral education rather than of corporeal revenge, with the policy of "teaching how to walk in the path of righteousness" substituted for the sterner legal dictum of an "eye for an eye and a tooth for a tooth." How much more, then, should a hospital aim to teach its patients what the penalties are for breaking the mandates of hygiene and how to live so as to avoid illnesses and conserve the health of the public!

When we talk of the hospital, we mean also the dispensary, the social service department, the nursing staff, and the district service staff. You can not deal with the one without involving the other. They are so entangled with each other that to attempt to disentangle would mean to destroy the whole fabric. In reality, all these are only branches of the same trunk, and, just as the health of the boughs and body of a tree is interdependent, so the efficiency and benefits derived from a hospital depend upon the coordinate and cooperative efforts of all its departments.

The patient who leaves the hospital is not discharged from its care until fully cured and restored to a state of complete working efficiency, or, if it is found that he is chronically ill and cannot be cared for properly at home, until he is referred to an institution for permanent care. Patients leave the hospital when they no longer need the bed, but many still need treatment and are referred to the corresponding department in the dispensary, so that they may be seen from time to time by the physician in whose care they were while in the hospital.

Perhaps we have a patient seeking admission to the wards whose physical state precludes his transfer from his home. In such an event the treatment is carried on at the home by the physician, the nurse, and the social worker, until the patient is in a condition to endure the fatigue of the journey to the hospital. It may be we have to do with an individual who is suffering from heart disease. In the happy-go-lucky days of old it was customary repeatedly to admit and discharge such a patient in accordance with the state of compensation and decompensation of his heart. Why these breakdowns of his health, few bothered to investigate. We all know that his final admission was his final exitus.

Now hospitals, through the social service department, seek to investigate what causes there are in the homes and workshops of their patients to bring about these periodic breakdowns. It is frequently found that some external factor, like the floor to which the patient must daily climb to get to his home, or the physical exertion of his burdensome occupation, is the cause responsible. In such a case the employer can usually be induced to change the position of the patient from one of heavy labor to that of light work not entailing heart exertion.

There is no effect without cause. Radical excision of an infective lesion is the best treatment. We need no charity to cure the ailments of poverty. We need justice.

It is for the state to prevent the causes that bring disease and want by the enactment of minimum wage laws, by the provision of work for the handicapped as well as for the able, by forcing medical attention upon the people in order to prevent dissemination of disease and to preserve the working efficiency of the breadwinner, by preventing bad housing, and, especially, by education. The Jewish people do not know the word "charity." Our concept of service to the less fortunate is justice. That word is the equivalent of charity in the Hebrew language.

The question of pauperization should not be considered by the institutions in their work. When we are confronted with disease, we must do all we can as promptly as possible to stamp it out and prevent dependency. When we are confronted with want, we must, without any loss of time, furnish the necessary relief to prevent sickness and death. The question of pauperization is a vital one from the viewpoint of the community. The employers must be educated to pay their employees living wages which include doctors' and nurses' care. And here is where federation can render a service of lasting moment to the people.

What boots it if a man gives a large sum of

*Paper read at the New York Academy of Medicine, April 2nd, 1919. The subject of the meeting was "Would hospitals supported by a federation function more satisfactorily if consolidated and directed from a central office?" The writer spoke on the following topic: "The advantages and disadvantages of such a consolidation from the standpoint of nursing service, training of nurses, hospital social service and dispensary service."

money to the federation and takes it away, and more with it, by compelling his underpaid employees to depend upon the free service of the federated institutions to take care of himself and his family?

In welfare work, as in the political state, centralization of authority has the advantage of strength, but is encumbered with all the failures of bureaucracy, of petty officialdom, of the lack of touch with actual conditions in remote territory. The liberty of the individual, his enthusiasm, and his sympathy for the work are sacrificed when power is vested in an individual only impersonally interested in the immediate problems of the locality. On the altar of centralization have been sacrificed the happiness of many corporate bodies, their liberty, and their effective cooperation. In the very idea of centralization is its weakness, for it breeds revolt and protests and dissatisfaction in all those subject to its autocratic decisions.

I sometimes wonder whether it is not better to create a more humble atmosphere where charity, or rather justice, is to be administered and where the depressed are to be comforted. I would hide the cold, glassy marbles; I would conceal the brilliant, chilling colors, and gloss over the brass and the tinsel ornaments with a more somber, homelike hue, and those that are downhearted and anxious would feel as if they entered a house where their language will be understood, their sorrows consoled, and their illnesses cured.

It is essential that the workers of a certain locality have sympathy with the racial characteristics of their clientele, with their religious customs, and with their likes and dislikes. This can be only if the system is a decentralized one. The patient will have learned from previous experiences or from the experience of his neighbors how well he will be treated by the welfare workers and how utter his reliance ought to be on their kindness and good judgment.

The hospital must be the health center of the district in which it operates, and it must make use of its dispensary, its district service, its social service, its nursing service, and its convalescent home to complete its work.

When we realize what has been told us by the government, that one-third of the people subject to the draft were rejected because they were physically unfit, an appalling situation is presented which demands serious thought.

As a health center, the hospital would render its utmost services to the community. By seeking the cooperation of the physician and by educating the public, we could so arrange that each hospital would be like another Life Extension Institute. Here the ailing would seek counsel and the physician instruction. The poor sick would come here to the out-patient department, or would be referred to the ward. From this establishment the social worker would endeavor to aid and improve the home surroundings, and, if necessary, food and clothing, and nursing and medical attention would be furnished at the house of the patient.

With the city arranged in zones so that each institution was in charge of a certain district, no overlapping would occur. This arrangement would also be a means of suiting the tastes and religious scruples of the community. In my opinion there is no question of sectarian segregation. It is a fact demanded by the people. Build nonsectarian institutions, and the people will unite and build another one to suit their peculiar likes and dislikes. A religious Jew would rather die at home than go to a non-kosher hospital.

It seems to me that the hospital should cater to the wants of the community, by endeavoring to teach the local members of the medical profession all that is new in their art. It is frequently the case that the physician loses all his connections with medical progress on the day of his graduation from college. The doctors of the vicinity should be informed of the weekly clinics and lectures held in the hospital. They should be told that the hospital is ready to make any examination—x-ray or laboratory—of any patient they may have, either free of charge or at a nominal fee. And the thought should be especially instilled in the minds of the medical men that they can, if they so desire, make every sick room in the vicinity part of the hospital.

The dispensary is an integral part of the hospital institution. A patient that comes in to the admitting clerk should be assigned either to a bed in the wards or to a clinic in the dispensary, where the same physicians are in attendance. As institutions are at present constituted, the patient gets very dubious treatment in the out-door department. Examinations are seldom thorough, diagnoses are made on very slim evidences, and treatment is usually limited to a laxative or a styptic, etc. This great fault is due to various causes. The physician sees no advantage to himself in joining the dispensary as an assistant. He derives no financial support from it, nor does his store of knowledge increase. In fact, he looks upon the dispensary as his enemy, who steals his means of livelihood. When he has made, let us say, a diagnosis, and the patient has been transferred to the hospital wards, he has no opportunity of learning the course of the disease, whether his diagnosis was correct, how the true

diagnosis was arrived at, or what was the ultimate outcome.

Assistant attending physicians should be in charge of the out-patient department. The staff should be so increased that thorough individual examinations of all patients would be feasible. It should be the duty of the dispensary physician to teach prophylaxis. The word doctor means "teacher" rather than "physician." If, with his "rhubarb and senna," the medical adviser would mix some words of wholesome counsel, the effects produced would be very much more lasting and would redound to the benefit of the generations unborn.

Admission to the dispensary should be more discriminate. It should not be possible for a patient able to pay the medical man his office fee to make a charity case out of himself by secreting his good clothes and telling his wife to hide her jewels. The social service department should investigate each case in doubt, and a campaign of education of the public should be entered upon to teach them to be ashamed of this dishonesty. The dispensary should treat only cases of the neighborhood, and, upon removal of the patient to another locality, a copy of the history records should be transferred to the dispensary of that vicinity. In this way overlapping would be avoided and much time and labor saved by the physician in reaching his diagnosis.

The education that the patient will receive in the dispensary should be such as will teach him the futility of wandering from clinic to clinic and obtaining in many institutions medications and treatment that counteract each other and conflict with one another. If a spirit of confidence is instilled in these patients—and this can be done only through education—they will refuse to exchange physicians and thus themselves help in the benefits to be derived from the dispensary. Under a compulsory system of confinement to zones, the patient will not have confidence in the dispensary of the district and will either go without treatment or use improper means and methods to secure therapy in another clinic.

Arrangements should be made to take away from the dispensary physician his clerical duties. The time that it takes him to fill out the various cards and to extract—and sometimes it is a very laborious extraction—the history of the patient could much more profitably be employed by him in the physical examination. Each clinic should have its paid clerk, who should attend to this work. With the Federation in existence, there would be no question of an institution being a poor one and unable to do all that a so-called "rich" institution can do. If the federation should find that a certain necessity exists for the creation of these paid positions, all the institutions that are federated would receive the proper apportionment of funds to carry out this project. The public is always willing, if convinced of the urgency of a certain expenditure, to foot the bill. They only demand to be educated.

There should be no necessity for volunteer workers, but for the time being, and under the present conditions, a school should be organized by the federation, to teach, not theoretical philanthropy, but the practical workings of those engaged in charity welfare. Those interested in doing good for the community might, after a due course of instruction, give of their spare time to an institution to which they would be assigned, and thus aid materially in the efficiency with which work could be quickly accomplished.

The social service worker of the hospital is a medical specialist. Her exertions are just as essential as those of the therapeutist in charge. No medication helps if the more important conditions of unsanitary surroundings, improper food, or lack of food, etc., are not remedied. Of all the departments connecting the hospital and home, the social service bureau is the most important. Of what good is it to take an individual and place him in a hospital and expect him to recover from an attack, say, of heart disease, when his brain is worried and his nerves are on edge all the time as to what is going on at home? He is the sole support of his family and he has left his wife and little ones to face starvation. Such a patient's convalescence is much prolonged and the ailment is sometimes incurable because of the patient's lack of mental repose. The Beth Israel Hospital recognized this fact in 1902, proving itself the pioneer in this field, three years before the Massachusetts General and four years before Bellevue Hospital followed suit. It was found that by having kind, earnest, and patient women investigate the home conditions of the breadwinner, and assure him that his dear ones are being taken care of, the recovery of the patient is enhanced and his stay in the hospital much shortened.

It is necessary, in many instances, not only to provide treatment, but to see to it that the patient gets the treatment. Many ailing people refuse to go to the hospital or dispensary because of the time involved which takes them away from their work. By a follow-up system we can see to it that each patient comes as often as is necessary. A clerk should check up the number of visits each patient makes, and, if he fails to report, someone should be sent to his home. By tact, and sometimes by beneficial intimidation, the patients are induced to report regularly.

I am opposed, as I have stated, to centralization of certain efforts which will hinder rather than aid our work. But I strongly favor consolidation for the purpose of education. As a federated government, the states of our union are always jealous—and properly so—of the authority vested in Washington. But for purposes of hygiene, protection, etc., affecting the entire community, they relegate to the central government seat all their vested powers.

So do I think that, for the instruction of the nurses, consolidation is urgent.

The nursing staff training in the various hospitals needs much reform. I can not see why any small hospital should be a training school for nurses. Why not have a college where girls will be taught the theory of nursing, and where assignments will be given to the various students for clinical work in the various hospitals? In this way the nurses will receive varied training which will make them capable of taking care of all types of diseased individuals. They will get a course in infectious diseases, mental diseases, chronic diseases, etc., by being assigned to various institutions for different periods. This procedure will make more efficient nurses, since the average standard will be raised. It will also decrease the expense of having a teaching staff—sometimes of markedly inferior caliber—in each hospital. The surroundings and circumstances of the nurses' work must be changed. It is an anachronism to expect women to work twelve hours a day, when common laborers are now demanding even less than eight hours' work a day. This condition will ultimately be changed. The number of nurses must be so increased that it will be feasible to make each nurse work not more than eight hours a day.

As things are at present constituted, the nurse is exploited for the benefit of the hospital. She is made to work for months at tasks which could easily be performed by a servant girl. She is taught how to wash the sills, the walls, how to remove the contents of the bedpan, and how to act in general as a maid should, not because she needs this extensive training—she can learn it all in a much shorter time—but because the hospital desires to save the money that would have to be expended in securing additional servants for the wards. Eliminating this unnecessary work will reduce the length of time of training the nurse.

Nursing service, nowadays, is limited to the very rich or the very poor. The individual of moderate means—who resents being a burden on the community—can not afford to engage nurses during a period of illness. Some arrangement should be made to take care of these people of the middle class. We speak and plan for the proletariat. Those of the upper classes speak and plan for themselves. For the ordinary bourgeois family—until the ideal conditions obtain—the pretense of respectability and the desire not to fall in the estimation of the neighbors act as a restraint against calling in the aid and assistance of those engaged in social service.

It seems to me that with equal rights and equal privileges, women should render equal service. It is right and proper that the state should so train them that they will be able to render the greatest service to the community. The question of health has always been neglected. Health, like truth, is naked, and brooks no compromises. All human beings must be taught how to take care of the body, sex hygiene, and how to bring up children to become healthy, normal men and women.

It is my theory that all women should be taught nursing—the practical as well as the theoretical sides of the art. In our present system of education we make all arrangements to give our pupils a smattering of various subjects, from the culinary art to music and drawing, with the result that the pupils who do graduate from our public school system neither know practical housewifery nor possess an artistic temperament. The question of health is almost entirely overlooked. The little that the pupils do get along lines of hygiene and sanitation does not at all prepare them for their duties of wifehood and motherhood.

All women at the age of sixteen should be required by law to spend the necessary time in the study of nursing. At that age, a girl is mature enough to appreciate the lessons that she will be taught. She will learn how to take care of sickness, how to prevent disease, and how to take care of her family during periods of illness. The girls physically or temperamentally unsuited for such training will be, of course, exempt.

Such training will receive partial credit for advanced study along other lines. Should the graduate nurse desire to become a lawyer or physician or engineer, etc., the time that she spent in the nursing school will count as part of her preliminary education.

The influenza pandemic and its complications was one of the most destructive visitations of disease in the history of our country. The success of the officials in checking the ravages of the disease was due in no small measure to the services of women, trained and otherwise, who acted as nurses. With a larger number of nurses, the disease would have been checked sooner and the list of victims would have been considerably reduced.

This question is an urgent one at the present moment. We have not a sufficient number of

nurses to take care of the illness and disease that has arisen incident to the demobilization of the army. Many of our young soldiers are ill with wounds inflicted not by Mars but by Venus, and the trail of sickness in the wake of the army needs thousands of nurses with the supply limited. As an urgent war measure and as a measure of reconstruction it is essential that this matter receive early action.

I have been informed by Dr. H. Dwight Chapin that as chairman of the health committee of the Reconstruction Commission of the Governor, he will recommend that the state devise means and methods for the training of practical nurses—not registered nurses—whose fees will be more moderate than those of the reguraly trained nurse, and who will greatly help the middle-class families. Acting along similar lines, the Rockefeller Foundation has inaugurated an investigation of the training of nurses and has appointed Prof. C.-E. A. Winslow, of Yale University, to report on this subject.

There is good and evil in all of us. It is only by learning our faults and endeavoring to improve them that we can better ourselves. What is good in the individual and the individual institution should be picked out and cherished.

By a central office of instruction and by frequent conferences, the welfare worker would be taught how to improve his methods, and would learn of newer practices elsewhere. A system of standardization should be inaugurated for the dispensary, for the clerical department, for the social service work, etc., which will be rich in information and will yield instruction to those that seek knowledge.

There should be no attempt made to force standardization upon the individual, but if the methods are truly good the individual will see the goodness of what lies behind and will voluntarily adopt it. We can not accomplish things by force. Education is our only weapon.

The future seems pregnant with marvelous possibilities.

A PLAN FOR THE LABORATORY TRAINING OF NURSES

Method Adopted by the Muhlenburg Hospital Increases the Scientific Training of Nurses to Qualify Them for Office Positions and Post-Graduate Technician Courses—Value and Service of Clinical Laboratory Extended—Pathological Interns Used to Best Advantage

By HENRY J. GOECKEL, Phm.D., Pathologist and Bio-Chemist, Muhlenberg Hospital, Plainfield, N. J.

IN common with other hospitals, the war brought forth for us the problem of a shortage in interns and a probable increase in hospital service due to the extensive war industries in our zone of activity.

We were fortunate, however, in being able to keep up the quality of our classes in nursing. Our present first-year class members are all high school graduates, and 25 percent of them have completed from one to five years of collegiate training. This gives us a class of students desirous and capable of receiving a higher grade of instruction than that attempted in many training schools.

Among other innovations, we aim to prepare them in such a way that they can, with advantage to themselves and to the institution, elect a practical course in the clinical laboratory during their third year of training. To this end, they receive, during their first year, a sixty-hour course of lectures, demonstrations, discussions, and written quizzes on physics and chemistry. The course is thorough and extensive—a complete university course in terms and illustrations of every-day hospital service. The lectures are broad and general. The discussions aim to bring out the application of and relationship to other branches of their training. The written quizzes are given with the specific intention of emphasizing and fixing in their minds things of particular importance. The written quiz is used in preference to the oral method, as it teaches the students to express their thoughts—a decided essential for the nurse.

In the second year they receive a course of lectures and demonstrations on clinical laboratory examinations and bacteriology, explaining the most frequently employed tests, the bacteriology of all the important infective diseases, and the relations of bacteriology to surgery. The relation of bacteriology to sanitation is brought out more fully in the course in Social and Personal Hygiene, which is studied later. The students are led to see the value of the microscope by having the normal histological tissues exhibited in conjunction with the course in anatomy and physiology during the first year, and the more striking pathological tissues, bacteria and urine sediments during the second year.

At the end of the second year they are in a position to receive a course of half-day periods in

the laboratory, making the routine analyses of sputum, blood, etc.

By this plan we are able to relieve the pathologic interns of many hours of routine work. (The interns are assigned to more advanced analyses, and, if they show enthusiasm and aptitude, to research work.) We likewise turn out graduate nurses who are capable of taking positions in the offices of physicians, who are qualified to be of service, and who can therefore command good returns for their labor. We believe that there is a demand for such trained nurses and that the demand is bound to increase. Our nurses also derive an additional advantage from this training in that they are ready, at the end of their three years of study, to take advantage of the post-graduate technician course, which is offered if they so desire.

LITTLE JOURNEYS TO PLACES "OVER THERE"

Six Bases at Beaudesert Center, Bordeaux—Low Rate of Mortality—Occupations in the Wards—American Red Cross Hospital Huts Are Centers of Good Cheer

By MARGARET J. ROBINSON, R.N., With the American Red Cross, France

THERE are six bases at Beaudesert Center, and the center as a whole has cared for as many as 18,000 patients at one time. The center was so planned that if the war had continued 40,000 patients could have been provided for by a gradual addition to the barrack and tent capacity. Single bases reached a census of nearly 5,000.

The base hospitals are much alike in construction and administration, and the description of one of these will give a picture of the units of the hospital center at Beaudesert, if one remembers that practically the same structural conditions and administration and living conditions are simply multiplied as each base is added, or as the capacity of existing bases is enlarged. Each of these bases, at the time the bases had reached their highest capacity, had sixty-four wards of wooden construction, and as many as eighty tents of the regulation hospital type. Each unit had twenty-eight auxiliary buildings. Sixty motor ambulances were in service at the center for the transportation of the ill and wounded from trains to hospital barracks, and again to trains or ships for embarkation from the port.

After visiting the American Red Cross hospital hut, which is described later, we crossed the duckboards, which make passage possible through the seas of mud, to the administration building. There is the usual barrack construction for administrative offices: the offices of the medical officer in command, his assistants, the clerical force for the administration, and the offices of the chief nurse.

In her office the chief nurse proudly showed us her desk, which had been made in the carpenter shop by convalescent patients in the reconstruction classes, and in the hall she called our attention to a memorial tablet in black wood with gold lettering, also the work of patients, carved with the names of the hospital staff and personnel who had died in service there. There were six names on the tablet.

For the sake of sequence, we began our trip of the hospital with the receiving tent. When a train arrives at Beaudesert, the soldier patients are admitted first to this barrack. Here each man is examined and assigned to special quarters according to his injury or illness. Complete history cards are made here for filing in the administration offices. The bath house is in the next barrack, and patients are bathed before being sent to the wards, stretcher cases receiving bed baths, and the men who are able, a tubbing.

The ward barracks have from thirty-six to fifty beds. The wards are all assigned to special types of cases; there are medical and surgical wards, amputation wards, fracture wards, skin wards, genito-urinary wards, isolation wards for influenza, pneumonia, diphtheria, and various types of contagion. The contagious ward, of course, has its own special base and plants for special disinfection, and its isolation and surgical technique are most stringent and thorough. Each ward is well provided with wash rooms, toilet rooms, offices, and service rooms.

Each base has its its own laboratory facilities, x-ray equipment, complete surgical equipment for operative procedures, dental offices, bathing barrack, administration barrack, officers' mess and living quarters, quarters for nurses and for corps men, kitchens and commissaries, mess halls, repair shops, and, last but not least, the Red Cross recreation huts, where the convalescent patients may get out of the hospital atmosphere and find comfort and wholesome amusement.

The bases are in charge of administrative medical officers and men who specialize in each line of work to which they are assigned, as far as it is possible to do so. The nursing forces are from the American Army Nurse Corps, recruited

through the Red Cross and under the direction of the chief nurse. Trained women reconstruction aides are employed by the army to do the work in occupational therapy, and large numbers of hospital corps men and enlisted men detailed for such service make up the personnel of the bases.

One of the most interesting features of the base hospitals at present is the work being done in occupational therapy. Entering one orthopedic ward, we saw an animated card game in progress on one bed. The occupant of the bed could use only one hand and arm, but he was getting along famously. The second player also had one arm in splints, and the third was balancing excitedly on two crutches. They tell me that lighting a cigarette and managing a hand at a poker game are the first mechanical movements after eating that bring to the handicapped soldier the impulse to begin life and work again after his injuries begin to heal, so I suppose we may also consider poker and cigarettes in the line of occupational therapy.

Fig. 1. (At the top) The American Red Cross farm at Beaudesert, Captain Guinness of the United States Army in charge. (In the center) While a crowd of American soldiers are waiting to get into the American Red Cross recreation hut, Base Hospital 114 at Beaudesert, near Bordeaux, Lieut. Guy Owsley, A. R. C., stands on a soap box to tell them where and how the American Red Cross Home Service can help them. (Below) Facial ward at the American Red Cross Hospital, Beaudesert.

In a bed next to the card game was a man with one arm out of commission and almost useless fingers on the good hand, making a beautifully woven bag on a small hand loom, which itself had been made by handicapped patients. Near the weaver sat another boy with about one and one-third of his hand efficiency, who was carving a tea stand with a landscape top. Farther down the line two hands with stiffened fingers were becoming flexible again while making a most artistic belt of Roman colors, and, from the farther end of the room, the occupational aide brought us a box which had originally held cigars and now bore vivid blues picturing stalks of spring flowers and a fascinating Alsatian girl on the cover.

Certain reconstruction aides, assigned to the work of physiotherapy, were massaging stiffened scar tissues around apparently useless joints. When the scar tissues become more pliable, joint movements follow, and, in many cases, comes a gradual return to usefulness of the joint itself.

On our way to the kitchen barrack and mess hall, we stopped at the reconstruction carpenter and forge shops. In these shops salvaged lumber had provided the material for the carpenters' benches, chairs and dressing tables for the nurses' quarters, and besides tables for the wards. A forge had been built at one end of the shop, and tools and splints were made from salvaged bed standards and old metal. The shoes of the personnel are mended here, too, and all the work of the shop is done by handicapped men who need reeducation or occupational therapy. The kitchen barracks are called "kitchen barracks" in correct army terms and the dining room is called the "mess hall." The doughboy, however, calls the whole place the "chow tent." This particular kitchen was feeding 3,100 people. There are huge army coal ranges and a long row of kettles for cooking large quantities of food. They are built much like the usual stock pot, and each one has its own fire of wood or coal. A big Dutch oven, built by the hospital working force, does all of the baking. There are bread-mixers, bread-slicers, and other kitchen machinery. The bread room is stacked high with huge loaves. The bread is baked at the rate of one pound a day for each man. The walls of the room

are scrubbed down daily, as well as the cement floors and furniture.

A blackboard keeps the daily census of patients and the amount of food to be sent to wards and quarters, with the menu for the day. The supper being served as we went through the kitchens consisted of salmon croquettes, cheese potatoes, peas, boiled onions, tea and bread, and rice pudding with raisins in it.

Photo from Western Newspaper Union

Fig. 2. Illuminated cross displayed over base headquarters No. 2 at Bordeaux, France.

There are ice houses, cold storage for meat and perishable foods, vegetable rooms, and dry storerooms. The kitchen force consists of officers and non-commissioned officers in charge, doughboy assistants, Boche prisoners, and some French women dishwashers. In the mess hall near the kitchen, convalescents able to be up and about freely were eating supper.

The dispensary barrack contains record offices, laboratories, throat and nose rooms, and dental offices. The surgical barrack has completely equipped operating rooms, anesthetic rooms, plaster room, and complete radiographic rooms. The sterilizing rooms have the usual apparatus of a good hospital at home, but instead of the shining nickel, the sterilizers were all in dull aluminum finish. We were told that the hospital corps men had become very proficient in assisting the surgeons, especially in plaster work. The surgical buildings are heated by steam. The reflecting lights over the operating tables had been made by regulation issue army mirrors placed at an angle of about 45 degrees, with three 100-watt nitrogen lamps hung in them.

There is a special barrack for sick nurses awaiting evacuation from the port. The Red Cross has helped to make this barrack as comfortable and attractive as possible, with real trays and table china, painted walls, pretty curtains, and flowers at each bed.

A part of one barrack is used for the fitting of artificial limbs, and here the patients who have undergone amputation are taught to walk. The occupational workshop has some really beautiful rug-weaving, raffia embroidered baskets, character toys, and all sorts of clever things made by the men in that class work.

The empyema barrack was especially interesting. It was found at first that these patients did not do well scattered about the base in medical wards, so a special open-air barrack was constructed for them, with its own operating room for resections and its own isolation technique.

The men here are given special food and supplementary nourishment, bottle blows twice each day, deep breathing exercises, and reconstruction movements by the aides to prevent arm-joint and

Fig. 3. A canteen where the convalescent men get sandwiches and coffee between meal hours.

muscle stiffening. As a result the mortality has been reduced, the percentage of recoveries has been raised, and the time of recovery hastened.

The nurses and nurses' aides and other women personnel at the hospital have their own recreation hut. Afternoon tea is served, and dances are given at regular intervals. The nurses' dining room has stenciled walls, decorated by the soldier patients, and curtains made of salvaged burlap embroidered by the men.

During the rush of the great drives on the front, convalescent patients and reconstruction aides worked on the wards. Doctors and nurses of

Fig. 4. Convalescent American soldiers playing billiards in the casino at Vittel, the famous French watering place. This room is one of the many run by the American Red Cross to give our boys some of the comforts of home.

the staff give enthusiastic praise for their help, and say that they worked heroically and cheerfully during many long hours and with the finest spirit of cooperation.

Some of the statistics at Beaudesert are little short of miraculous. One base, which has cared for as high as 4,596 patients at one time and has been in use since September, 1918, during the whole of the great fall drive, shows a death rate of only 0.25 per cent. The base handling the contagion of the port, which has also been in operation for the same length of time, has not lost one case of influenza, not one case of diphtheria, nor one of scarlet fever. In fact, with the exception of some hopeless third-stage tuberculosis cases which came to the base just about in time to die, there have been only two deaths at this base.

In spite of the fact that temporary barrack hospitals necessarily lack the perfection of permanent institutions, one realizes that the right essentials of hospitalization are all here and that American ingenuity, efficiency, and conscience are constantly at work to produce the best results

Fig. 5. A game and an interested audience.

for the ill and wounded American soldiers at this port of embarkation.

AMERICAN RED CROSS HOSPITAL HUTS REMIND THE BOYS OF HOME

The first American Red Cross hospital hut was opened in July, 1918, at A. R. C. Hospital No. 5 at Auteuil. Seven more huts at different bases were opened later in the same month. As sufficient women personnel began to arrive from America to care for this special Red Cross activity, more huts were added at bases where the need of them was shown. On January 1, 1919, ninety-two huts were in operation, involving the use of 274 personnel.

These huts came into being as a definite activity of the American Red Cross, when it became evident that wholesome recreation and social life were absolutely necessary to the good morale of the convalescent soldier. The testimony of the soldiers themselves has proved that the hospital

hut has helped to make life bearable to the convalescent soldier, who is of necessity depressed and homesick.

The huts were in most cases built by the army and were of the usual army barrack construction. The huts were decorated, furnished, and staffed by the Red Cross. The army in most cases furnished a detail of workmen to keep the huts clean and do heavy work which could not be done by the Red Cross women personnel. The hut served in all cases as the headquarters of the Red Cross at that base, where the Red Cross, representing the people at home, could come into personal touch with the men and furnish to them comforts and pleasure beyond what the routine life of the army could give them.

Fig. 6. (Above) It is from a pleasant place like this that the men in the Red Cross huts write home. (In the center) This phonograph concert out of doors seems to be enjoyed. (To the right) Officers' club at Issoudun.

It was realized by the Red Cross that one of the most important things necessary to the success of the huts was to make them as attractive and homelike as possible, to make them a distinct contrast to the mud and rain and mists of France, and a contrast to the routine army life in trenches and barracks. This was done only after much hard work and many difficulties, but the results more than justified the labor.

The directress of one hut says: "The hut was gloomy, so we have painted the interior a battleship green and the top walls a pale green, with the dividing line of brilliant yellow, and have curtains and lamp shades to match. We have potted plants and hanging baskets and English ivy."

Here is another report: "When we have spare minutes we spend them in looking at the hut, and we have been known, after patients and detail have gone to bed, to turn on the lights just to feast our eyes. Owing to the success of the alterations and decorations of the head aide in occupational therapy, we may believe with fair grace when people tell us it is the most beautiful

hut in France. There are wings ten feet wide running its whole length. This has made the proportions beautiful. From the uprights, holding the trusses of the main roof, we have hung the flags of the allies. The effect and the coloring are splendid.

"The walls are a deep burnt orange and the uprights, as well as the structural supports of the roof, are stained dark brown. The box seats running the length of the wall and the bookcases are dark brown also. The window curtains against the orange wall, and the benches scattered about, are a vivid blue—a colorful background and effective setting for khaki. Large pleated yellow shades give a golden glow to the hut when they are lighted. Halfway down one side is a huge fireplace of dark blue brick, a huge American one—it warms the heart of every cold American who enters the hut. An architect disguised as a corporal designed the fireplace as a freewill offering."

Each hut is operated by women, from one to fifteen, as the size of the hut and the number of men to be served requires. There are a circulating library, class work, commissary canteen, parties, hot drinks served, moving pictures, Y. M. C. A. entertainments, and amateur bands and minstrel shows, concerts, and human sympathy dispensed by the workers when asked for or needed.

The American Library Association assists the Red Cross in furnishing books and magazines, and a trained librarian systematizes the book and magazine distribution and attends to the stationery.

Several huts have enthusiastic French classes, one a class in stenography, another a class in dancing, and there are also a glee club and orchestra practice, handwork, and toy making. In one hut toys were made and given to the French children of the village. In front of the big maps on the wall there is always a group which might be called the geography class.

When there is no army commissary at the base, the hut performs its service, and at certain hours of the day the men may buy tobacco and cigarettes, towels, razors, chocolate, and other things. Special food treats are given several times a week. The things that are served are the kind never got in a chowline—doughnuts, cake, fudge, ice cream, hot cocoa, sandwiches, or homemade coffee.

Most of the huts have a stage with curtains, scenery, and footlights made by the patients, and every night sees an entertainment, either professional or amateur. Community "sings" and dances are always popular. During the day the men will play games, play the piano, or sit around the fireplace and read, and on Sundays the chaplain conducts service and everybody sings.

A home communication bureau worker usually has an office in the hut or visits it periodically, and men who are worried about back pay, allotments, sickness at home, or no news from home, get connection with some movable machinery to stop the worry, and get comfort by telling their troubles to a sympathetic woman's ear.

Hut workers go with the army rolling kitchen to the hospital trains, and the wounded men are served with hot drinks and cigarettes and nut-bar chocolate.

One hospital center has an ice-cream room made by the boys, with a cork-lined icebox with trough and drain made of tin from cigarette boxes. Ice cream is made here every day for ward patients. One hospital hut has a special diet kitchen where invalid diets are prepared.

Here are one day's statistics from Vichy, which had the largest hospital hut in France:

Tobacco line at commissary	1,500
Cups of coffee or cocoa served	1,500
Dance attendance	5,500
Quarts of ice cream served during week	150

This hut has a pressing room for the men's uniforms and a sewing and refitting room.

I went out in a rattling little old Ford through a pouring rain from Bordeaux one day to Baudesert Center. Hospitals, bare barracks set down in seas of mud with board walks between, are not very cheerful for a steady, everyday environment.

Then I entered a door and came into another world—another atmosphere.

There seemed to be acres of soldiers—standing, sitting, coming in and going out. The place hummed with talk like an afternoon tea at a woman's club. The hut was the one described earlier in this article, the one with the orange walls, brown rafters, blue tables and curtains. The whole place was warm. In one corner at a booth a young woman in bright blue uniform was giving out books and writing paper. In another corner a boy was playing ragtime. At each end of the room stood a table and a big blue enameled urn with a tap, and women in blue were pouring out cups of steaming chocolate.

I noticed one entrance door where the boys coming through were all on crutches, or had lost an arm or leg, or had arms or legs still in splints or dressings. This door was kept clear just for them, so that they could take their time getting in and not be jostled or crowded. I noticed, too, that when they came in some other boys always made way for them or jumped up and gave them the best seat by the big fireplace or the writing

tables or let them take first place at the library booth.

A boy sitting on one of the benches stopped me as I passed and asked me where he could take the slip he held in his hand, which read:

3 handkerchiefs
1 tooth brush
1 sweater
Mary——
Head Nurse, Ward —

I told him to wait, and I asked one of the women pouring chocolate about it, and I heard of another fine thing. When a man is broke and needs things and the nurse of the ward finds out about it, she signs an order like this, and this order is filled without any payment at the Red Cross storeroom in the hut. So I went back and took the boy with the crutch to the storeroom window. Eight hundred cups of chocolate were served that afternoon; eight hundred boys came in to the warm fire; eight hundred boys, homesick and depressed by injury or illness, came out of the barrack hospital atmosphere and into the one created for them by the people at home through the American Red Cross.

FROM OUR FIELD EDITORS' NOTEBOOKS

Practical Suggestions From Fall River Hospital—Interesting Ward Construction—Transferable Double Doors Found Useful at St. Luke's, Chicago

Union Hospital, Fall River, Mass.

When I called at the Union Hospital, Fall River, Mass., the other day, I was greeted by its new superintendent, Dr. Appleton W. Smith. Dr. Smith was formerly superintendent of the Hartford Hospital, Hartford, Conn., and has been at the Union Hospital about three months. As I was escorted about the buildings, I noticed a number of excellent things. For example, on the ground floor the wings of the main building, which run north and south, are divided lengthwise into two wards containing eight beds each, instead of being constructed as one ward to contain sixteen beds. By this method of ward construction, the beds are placed between the windows and the patients face the wall between the wards, instead of the glare of opposite windows. This plan also permits a more accurate classification of patients, while, at the same time, it enables the nurse to control both wards from her desk in the approach. Solariums are at the south end of each wing and can be entered directly from each ward. Each ward, moreover, has an attractive fireplace. Every-other window on the porch side of the wing is carried down to the floor, door-like, thereby permitting the beds to be wheeled in and out of doors readily with a minimum amount of travel. The call system is extended to the porches.

I was glad to see a limited number of well-chosen pictures hanging on the walls of the wards, as well as potted plants tellingly placed here and there, and artificial nasturtiums giving a touch of brightness. The walls are tastefully decorated in light green.

The hospital is equipped with the indirect lighting system, and there are detachable electric lights for each bedside. All radiators rest on wall brackets. Besides the customary accessory rooms connected with the wards, there is a room reserved for cases requiring special care.

Linoleum floors prevail throughout the hospital, except in the solariums, the main hallways, and some of the rooms accessory to the wards.

One of the interesting rooms of the hospital is the library and record room on the second floor of the central building. Here is a small but up-to-date medical library, to which the physicians and other workers in the hospital have ready access. The room was erected by Charles H. Dring and Caroline A. Dring, in memory of their father, Charles P. Dring. A bronze tablet on the wall states this fact, and ends with the legend:

"A skilled mechanic
A successful manufacturer
An honored employer
A trusted official
A worthy citizen."

The top floor of the main building beside housing the operating suite, has a small isolation suite quite apart from the rest of the institution. It consists of two rooms, a small kitchen, a bath, and utility rooms.

In 1917 the hospital opened its new building, the Stevens' Clinic, but this is another story, and must be told in a longer article.

St. Luke's Hospital, Chicago

One of the little devices that help to make St. Luke's Hospital notable for comfort is the transferable double door, by means of which any room may be made soundproof. The doorway of each room is provided with two sets of hinges, one on the inner side for the permanent door, swinging in, and the other on the outside, for the temporary door, swinging out, and hung whenever the patient needs to have all sound absolutely excluded. Both doors are provided with checks which prevent them from being slammed.

The phonograph is used in taking histories—in fact, St. Luke's was one of the first hospitals in the country to use this method of taking down histories. The admitting officer dictates the previous history to the machine; the roentgenologist, the surgeon, etc., likewise dictate their portions of the record, and typists take them off on the history sheets. It has been found impracticable, however, to have the interns use this method.

St. Luke's was also one of the first hospitals in the country to make anesthesia a separate department and to offer training to medical men and women who wish to become qualified anesthetists. As a matter of fact, the only candidates for this training are women, for men, as a rule, regard anesthesia as a non-permanent career, but merely a stepping stone.

The wonderful orthopedic department of St. Luke's (the largest in the country except that of the Hospital for Ruptured and Crippled in New York) was briefly mentioned in this department some time ago (July, 1918, p. 27), and we hope before long to publish an extended description of it by a member of the staff.

The MODERN HOSPITAL

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Herbert Burr Howard

Dr. Herbert Burr Howard retired from active service as superintendent of the Peter Bent Brigham Hospital of Boston on May 1, 1919. Since his graduation in medicine from Harvard in 1884, he has been continuously in hospital administration, with the exception of a few early years of professional work. A portion of this professional work was in private practice at Idaho Springs, Colorado, and a portion was at the State Almshouse, now the State Infirmary, as assistant physician. Dr. Nichols speaks as follows of his professional work at Tewksbury:

"He made an enviable record both as physician and surgeon in the hospital wards where there averaged two thousand cases admitted per year and also displayed rare ability and understanding of the difficult problems of treatment and management in the wards for insane patients who averaged four hundred daily. Well-grounded in medical science and well-skilled in his practice, he combined with these qualities, courage, sound judgment, and, above all, a wonderful personality which won the affection and admiration of his patients. Wholesome good nature seemed to radiate from him as he passed through the wards, and no one could be more sincere and gentle in their words of comfort and sympathy in the wards, to the children, the feeble or the suffering patients, and to the anxious or sorrowing relatives or friends. In all the successes he has made nothing has exceeded his success as the skilled, kind, and faithful physician when first assistant at the state almshouse. Nowhere could hospital patients receive more humane care than under Dr. Howard's direction."

In 1891 Dr. Howard was made superintendent of the State Infirmary at Tewksbury. During this administration an extensive program of construction was adopted and executed. He thoroughly organized the training school of this institution.

In 1897, when the Massachusetts General Hospital was looking for a resident physician, the attention of the trustees was directed to Dr. Howard's work and he received the appointment. Here he remained until 1908. His prestige and that of the hospital rose together during that period. In this year the trustees of the Peter Bent Brigham Hospital were looking for a superintendent. They needed a man big enough and with the experience to build a complete modern hospital and to organize and equip it. They were peculiarly fortunate in being able to induce the one man best fitted for the task to accept it. The history of his success is known to all. He remained superintendent of this hospital until his recent retirement from active service.

Dr. Howard became interested in the problem of the care of the insane while assistant physician at the state infirmary. He has continued this interest and given the state valuable public service as trustee of the state colony for the insane at Gardner and member and chairman of the Massachusetts state board of insanity.

Dr. Howard is so well known to the hospital world that this attempt to describe his work and mention some of his manifold activities is superfluous for many of our readers. It cannot possibly cover the whole field. He is an excellent business man. His vision has been keen and its scope broad when he has viewed hospital policies, were they questions of the care of patients, medical education, the training of nurses, or the construction of buildings. At each of his hospitals one has but to consider any one of these points fundamental to a modern hospital, to convince himself of the truth of this. Dr. Howard was one of the first to provide facilities for moving the patients' beds out of doors. The verandas and wide doorways at the Massachusetts General Hospital are eloquent witnesses of his teaching. At the Peter Bent Brigham Hospital he has worked out a ward unit which is a model of convenience and comfort for patients, nurses, and physicians.

His interest in medical education has been shown by his ready cooperation with medical schools and teachers in admitting students to the wards and in the construction at hospital expense of class rooms and laboratories for students. He believes and preaches that medical teaching in hospitals reacts favorably upon the sick because

of the necessity for increased vigilance and study on the part of the teacher when working under the keen eyes of students. He has always encouraged research in hospitals provided that the interest of the patients was carefully guarded.

Dr. Howard's attitude towards nurses' education and nurses' welfare is best indicated by the large number of friends he has in the ranks of nurses. When he first came to the Massachusetts General Hospital in 1897 the conditions of the nurse's life were very different from what they are today. Their hours of duty were long, their food was very plain, and they did much manual labor in the wards now done by ward maids. These conditions have changed all over the country, but Dr. Howard, with the help of his superintendent of nurses, Miss Pauline L. Dolliver, was a pioneer and leader in this work. He is still known among the older graduate nurses of the Massachusetts General Hospital as the man who first gave the nurses fruit and cream on their breakfast table. The high standing of the training schools at the Massachusetts General Hospital and at the Peter Bent Brigham Hospital bear witness to his ideals for nurses.

In hospital construction Dr. Howard's ideals have always been for simplicity and practical utility. The main buildings constructed by him at the Massachusetts General Hospital are the domestic building, the surgical building, and the out-patient building. Each of these at the time it was built was a step in advance of any previous hospital construction for its purpose and all effectively fulfill their functions today. The Peter Bent Brigham Hospital is a witness everywhere of the simple, practical, efficient man who planned it.

Dr. Howard is a big man physically. That he is also great in the essentials of character is best shown by the warm loyalty and affection of the men whom he has trained and the officers and employees who have served under him.

FREDERIC A. WASHBURN, M.D.

The Value and the Limitations of Standardization

We publish this month a paper on this subject which is of exceptional interest because of its illuminating discussion of principles. This is Miss Isabel M. Stewart's article in the Department of Nursing on "Possibilities in Standardization in Nursing Technique," which will well repay reading, even by one not specifically interested in nursing.

Standardization, Miss Stewart reminds us, depends on the possibility of ascertaining, by scientific observation and study, the most highly efficient methods of performing work. Once such a standard has been adopted, the individual workers may depart from it in the slightest particular only at risk of impaired efficiency. Manual labor, under necessarily fixed conditions—brick-laying, for instance, or any of the vast number of operations conditioned by machinery—is peculiarly adapted to such standardization. The moment, however, that the problem is complicated by varying conditions, impossible to foresee and embody in a formula, and only to be met by resourcefulness and ingenuity on the part of the one actually doing the work—that moment real standardization becomes an impossibility, and pseudo-standardization a stumbling-block to efficiency. Nothing can be more disastrous than complacent reliance on a standardized stereotyped course of procedure in situations that require, instead, insight, understanding, and ability to adapt action to the need. None the less, even in such emergencies, a basis of judgment is necessary. That basis of judgment is provided in a firm grasp of principles.

Now, as Miss Stewart says, the possibility of standardizing much of nursing technique should not be ignored. Time, energy, and material expense could be saved by the elimination of useless elaboration. Scientific study which might lead to such saving should be welcomed.

On the other hand, very few of the problems with which nurses are confronted "can be solved by the manual dexterity alone or by any machinery which can be automatically set in motion." The very fact that every patient is different from every other patient—that every disease is different from every other disease—that every case is in some respect different from every other case of the same ailment—that every case is surrounded by different circumstances—all these facts make it impossible to provide a ready-made, stereotyped solution for every problem, or to accept a clockwork automaton as the ideal nurse. The real nurse must have personality, she must have brains, and she must exercise both in her work. Moreover, having both, she is very likely to require opportunity to exercise them, for, as Miss Stewart further reminds us, the more human a human being is—the further removed from a cog in a machine—the more insistantly that person's nature demands the opportunity to put individuality into his or her work. It is necessary, therefore—and this applies not to nursing alone, but also to every form of work that demands intelligence—to fall back on principles rather than mechanically standardized forms of procedure.

"The conclusion seems to be, then, that while we need to study our methods much more carefully and need to work out our procedures on a scientific basis so far as

possible, we do not want to insist on any rigid adherence to set forms of technique. So long as certain fundamental principles are observed, it would be an advantage rather to have at command a variety of methods, and it would always be important that we should be able to adjust them readily to suit varying needs and conditions. Our standards would be used not as rules to be followed but as guiding principles or standards of reference."

Taking Stock of the Human Investment

Every hospital has a very considerable investment in the human elements of the organization. The time that has been spent in training employees, the mistakes from which they have learned, the gradually increasing fund of experience which they have gained in the service of the institution—all this represents an investment none the less real, though the outlay has been unnoticed. Books are difficult to keep with these human values, and therefore they are sometimes overlooked. And yet the difference between the success and the failure of a hospital may be just the difference between ability and inability to control the returns from these intangible assets. If there is a season in the year more subject than another to a slump in these stocks, that season is summer. Now is a good time, therefore, to go over accounts and see whether or not these investments are bringing in a satisfactory return, and, if not, why not.

Is every employee in the institution putting not merely his time but his heart and his soul into his work? Is the one who does not the exception or the rule? The success of a hospital is nine-tenths personality, and nine-tenths of that personality radiates from the superintendent. If perfunctory, spiritless performance of tasks characterizes anything like the majority of employees, the cause is probably one that is common to all, and the superintendent of that institution will do well to address some heart-searching questions to himself—such, for instance, as:

Am I myself putting my heart and my soul into my work? What kind of personality do I infuse into my subordinates and associates? Does my joy in my work overflow into appreciation of the work of my staff? What effect has my passage through a room on the people at work in it? Do they shrink in dread of a fault-finding which, deserved or not, is likely to descend on their heads, do they hasten to pretend an industry and attention which were not visible before and which will vanish the moment my back is turned, or are they really glad to see me, and will they, after I have gone, work with just a little bit more zest and interest because of the added vim I have imparted to them?

One thing more: If the answers to these questions don't add up to give the balance you want, don't hand in your resignation. Try this: See that every one in the institution (yourself included) has a vacation that will at least afford a chance to bring that person's stock to par. Perhaps you have all run down in efficiency without appreciating it; you may have been realizing only 50 percent of your potential value. Get away from your work altogether; get away from the petty worries and tribulations that fog your vision and keep you from the sight of the stars; get out into a larger world and a wider circle of interests, and try to come back renewed and invigorated not merely in physical health and strength but also in courage and ideals. Then see if the books don't balance.

Portrait of a Lady (Early Victorian)

If Florence Nightingale could have chosen the year of her birth, one wonders, would she have selected that which followed Queen Victoria's? Certainly, birth in no other decade could have brought her to maturity just in time for the great work for which she seems to have been destined. Also, scarcely any other time could have presented a more maddening thicket of obstructions to that work. Very nearly every early-Victorian tradition of "woman's sphere," not to speak of the lady's sphere, blocked her way. "It was not by gentle sweetness and womanly self-abnegation that she brought order out of chaos in the Scutari hospitals," says her latest biographer[1]—who, indeed, also says that "a demon possessed her."

Well, Scutari was a hell, and a demon was needed to cope with it. We credit ministering angels with vast stores of pitying grace, but not so much of the practical common sense and energy with which devils are popularly endowed. The singular lesson of Scutari seems to be, in fact, that hells are made by the stupidities and blundering ineptitudes of commonplace, fairly well-meaning mortals, and that it takes demoniac fires to purify them. All this, however, is aside from Mr. Strachey's brilliant portrait.

Born into a wealthy and socially well-placed family, at a time when it was almost disreputable —at least quite unimaginable—for a woman of good social position deliberately to choose any career of usefulness outside her own family, Florence Nightingale was irresistibly impelled toward a vocation which actually was followed then only by the dregs and offscourings of womanhood. The very perversity of madness it seemed for an attractive young woman, with every opportunity in the world for making a bril-

[1] Strachey, Lytton: "Florence Nightingale," in "Eminent Victorians," G. P. Putnam's Sons, New York.

liant match and living happily ever after. Yet, in spite of "social duties" exacted of the most unwilling denizen of the social paradise into which she had been born; in spite of the shocked resistance of her family to all her preposterous desires —in spite of the most benumbing influence of all, that intense despairing melancholy which sometimes besets frustrated or unfulfilled genius—in spite of all this, "she yet possessed the energy to collect the knowledge and to undergo the experience which alone could enable her to do what she had determined she would do in the end. In secret she devoured the reports of medical commissions, the pamphlets of sanitary authorities, the histories of hospitals and homes. She spent the intervals of the London season in ragged schools and workhouses. When she went abroad with her family, she used her spare time so well that there was hardly a great hospital in Europe with which she was not acquainted, hardly a great city whose slums she had not passed through. She managed to spend some days in a convent school in Rome, and some weeks as a *sœur de charité* in Paris. Then, while her mother and sister were taking the water at Carlsbad, she succeeded in slipping off to a nursing institution at Kaiserswerth, where she remained for more than three months. This was the critical event in her life. The experience which she gained as a nurse at Kaiserswerth formed the foundation of all her future action and finally fixed her in her career."

At length her still bewildered family gave way in exhaustion. With incredible perversity, Florence had steadily declined all inducements toward what was, in the early-Victorian view, a reasonable life for a young woman born in the lap of fortune. In her thirty-fourth year she became superintendent of a charitable nursing home. A year afterward came the Crimean War.

"The whole organization of the war machine was incompetent and out of date. The old duke had sat for a generation at the Horse Guards repressing innovations with an iron hand. There was an extraordinary overlapping of authorities, an almost incredible shifting of responsibilities to and fro. As for such a notion as the creation and the maintenance of a really adequate medical service for the army—in that atmosphere of aged chaos, how could it have entered anybody's head? Before the war, the easy-going officials at Westminster were naturally persuaded that all was well—or at least as well as could be expected; when someone, for instance, had the temerity to suggest the formation of a corps of army nurses, he was at once laughed out of court. When the war had begun, the gallant British officers in control of affairs had other things to think about than the petty details of medical organization. . . . Thus the most obvious precautions were neglected, the most necessary preparations put off from day to day. . . . Errors, follies and vices on the part of individuals there doubtless were; but, in the general reckoning they were of small account —insignificant symptoms of the deep disease of the body politic—the enormous calamity of administrative collapse."

It might seem almost a miracle that that inert mass of self-satisfied official incompetence ever permitted an amateur—and a woman at that—to reach the base hospitals. Now, however, was the time when Miss Nightingale's social position, so long a shackling weight, began to be useful to her career. Sidney Herbert, now at the war office and in the cabinet, was her intimate friend and thoroughly convinced of her great ability. Thus it happened that, to the mingled bewilderment and disgust of the military officials, she went to Constantinople accompanied by thirty-eight nurses, with funds from private sources at her disposal amounting to about thirty-five thousand dollars (which were further augmented by large sums of money collected by the London Times)—and with an official appointment and the War Office at her back.

"Want, neglect, confusion, misery—in every shape and in every degree of intensity—filled the endless corridors and the vast apartments of the gigantic barrack-house, which, without forethought or preparation, had been hurriedly set aside as the chief shelter for the victims of the war. The very building itself was defective. Large sewers underlay it. . . . The floors were in so rotten a condition that many of them could not be scrubbed; the walls were thick with dirt; incredible multitudes of vermin swarmed everywhere. And, enormous as the building was, it was yet too small. It contained four miles of beds, crushed together so close that there was but just room to pass between them. Under such conditions, the most elaborate system of ventilation might well have been at fault; but here there was no ventilation. The stench was indescribable. . . . The structural defects were equaled by the deficiencies in the commonest objects of hospital use. There were not enough bedsteads; the sheets were of canvas; . . . there was no bedroom furniture of any kind. . . . There were no basins, no towels, no soap, no brooms, no mops, no trays, no plates . . . no knives or forks or spoons. The cooking arrangements were preposterously inadequate, and the laundry was a farce. As for purely medical materials, the tale was no better. Stretchers, splints, bandages—all were lacking, and so were the most ordinary drugs. To replace such wants, to struggle against such difficulties, there was a handful of men overburdened by the strain of ceaseless work, bound down by the traditions of official routine, and enfeebled either by old age or inexperience or sheer incompetence."

Against this dark background stands forth one figure—that of the lady whose very presence there seemed to the honest officials so incongruous as to be ludicrous.

"Her position was, indeed, an official one, but it was hardly the easier for that. In the hospitals it was her duty to provide the service of herself and her nurses when they were asked for by the doctors, and not until then. At first some of the surgeons would have nothing to say to her, and though she was welcomed by others, the majority were hostile and suspicious. But gradually she gained ground. Her good will could not be denied, and her capacity could not be disregarded. With consummate

tact, with all the gentleness of supreme strength, she managed at last to impose her personality upon the susceptible, overwrought, discouraged and helpless group of men in authority who surrounded her. She stood firm; she was a rock in the angry ocean; with her alone was safety, comfort, life. And so it was that hope dawned at Scutari. The reign of chaos and old night began to dwindle; order came upon the scene, and common sense, and forethought, and decision, radiating out from the little room off the great gallery in the barrack hospital where, day and night, the lady superintendent was at her task. . . .

"Certainly she was heroic. Yet her heroism was not . . . the romantic sentimental heroism with which mankind loves to invest its chosen darlings; it was made of sterner stuff. To the wounded soldier on his couch of agony she might well appear in the guise of a gracious angel of mercy; but the military surgeons, and the orderlies and her own nurses . . . could tell a different story. . . . Beneath her cool and calm demeanor lurked fierce and passionate fires. As she passed through the wards in her plain dress, so quiet, so unassuming, she struck the casual observer simply as the pattern of a perfect lady; but the keener eye perceived something more than that—the serenity of high deliberation in the scope of that capacious brow, the sign of power in the dominating curve of the thin nose, and the traces of a harsh and dangerous temper . . . in the small and delicate mouth. . . . As for her voice, it was true of it, even more than of her countenance, that it 'had that in it one must fain call master.' Those clear tones were in no need of emphasis: 'I never heard her raise her voice,' said one of her companions. Only, when she had spoken, it seemed as if nothing could follow but obedience."

Of the end of the nightmare—of the mortality rate reduced from 42 per hundred to 22 per thousand—of the long after-life during which Miss Nightingale from a sick-bed reformed the army medical department, improved conditions in infirmaries and workhouses, founded the training of nurses, advised statesmen, and at her own pleasure received generals and princesses—and incidentally wore out or killed her closest friends with overwork—of all this there is no space to speak here. For this we must refer readers to one of the most remarkable biographies of the year, in Mr. Strachey's gallery of "Eminent Victorians."

Success of the Blind as Masseurs

There is at least one field in which blindness is far from being a handicap. This is the vocation of massage. In Japan, it is said, massage is an occupation reserved for the blind exclusively. St. Dunstan's Hostel,[1] London, England, has of late been very successfully training blind masseurs, as is attested by the following letter to Sir Arthur Pearson from General Robert Jones, director of the Liverpool military orthopedic hospital.

"The work which your blind masseurs do is very exceptional in quality. They are in every sense of the term a great success. I find them all intelligent and possessed of a wonderful gift of touch, together with keen enthusiasm for their work. Apart from their qualities of masseurs, I think they have good psychological effect upon their patients. I consider institutions which secure the services of those trained at St. Dunstan's very fortunate."

This letter, it is said, furnished the incentive for the initiation of the class for blind masseurs in Chicago, described by Mrs. McCallin on another page of this issue. This, too, seems well on the way toward success—a most gratifying testimony to the value of the work in which St. Dunstan's has been a pioneer.

[1] Described by Mrs. Sidney McCallin in THE MODERN HOSPITAL, October, 1918, XI, 295.

Some Good Advice

The Presbyterian Hospital, Chicago, has the following motto framed and hung where the employees can read it constantly:

"If you work for a man, in heaven's name, work for him. If he pays you wages that supply your bread and butter, work for him; speak well of him; stand by him; and stand by the institution he represents. If put to a pinch, an ounce of loyalty is worth a pound of cleverness. If you must vilify, condemn, and eternally disparage, why resign your position, and when you are outside, damn to your heart's content. But as long as you are a part of the institution, do not condemn it. If you do, you are loosening the tendrils that hold you to the institution, and the first high wind that comes along, you will be uprooted and blown away in the blizzard's track, and probably you will never know why.—Elbert Hubbard."

THE LATCHSTRING OUT

MISS MARY C. COLLINS, superintendent of Wesley Hospital, Wichita, Kan., brings to this office news of notable improvements in that institution which will increase the capacity of the hospital from forty beds to one hundred and twenty-five.

MISS ELIZABETH WRIGHT, superintendent of Rockford Hospital, believes that the future of nursing lies in the hospitals and in public health work. Accordingly, public health nursing and school nursing are included in the curriculum of the training school of Rockford Hospital. The school affiliates with Michael Reese Hospital, Chicago, and, Miss Wright says, never has trouble in securing an excellent class of material to fill its classes.

COL. B. W. CALDWELL of the personnel division of the Surgeon-General's Office, on a recent visit here, voiced a regret for the passing of the old country doctor, with his pony and cart, always at the command of those who wished his help. The only help in the solution of the rural problem, in his opinion, lies in the encouragement of young doctors to go out into the country for the years following their internships. Dr. Caldwell believes that the country doctor is fully as competent as his city colleague. The country doctor has a diversity of experience, but the city doctor is spoiled through specialization.

MISS IDA M. BARRETT, superintendent of Blodgett Memorial Hospital, Grand Rapids, Mich., has a fund of information and experience in hospital affairs which we hope to draw on for the benefit of THE MODERN HOSPITAL readers. At all events, we shall soon publish an article descriptive of Blodgett Memorial Hospital (which is in many ways a unique institution), by Miss Christine M. Hendrie, supervisor of instruction in the training school.

OUT OF LONG EXPERIENCE

Dr. H. B. Howard, Retired Superintendent of Peter Bent Brigham Hospital, Talks on What He Has Learned—Accurate Accounts, Spirit of Cooperation, and a Sense of Humor Mean Success

By J. J. WEBER, Associate Director, Boston Dispensary, Boston

Everyone acquainted with Dr. H. B. Howard, who retired on May 1 from the superintendency of the Peter Bent Brigham Hospital, knows that he is a modest man. Consequently it was with little hope of getting him to say much about his own achievements that I called upon him the other day to get a message to hospital workers, especially hospital superintendents, a message that would spring out of thirty years of varied experience in hospital management during a period of rapid expansion and changing methods.

I was anxious to have Dr. Howard tell me something that would be of real value to superintendents throughout the country, and so I asked him what were some of the conclusions to which his long and varied career had led him as to the qualifications that go to make a succesful hospital superintendent.

His first statement took me quite by surprise. "I have an idea," said he, in his customary deliberate manner, "that no one can be a really successful hospital superintendent who is not a good mathematician. He must be able to understand and interpret figures. In short, he must be something of a statistician."

And with this, Dr. Howard stepped into the outer office and came back with a large canvas-covered book, which he opened before us. It was ruled into many columns, each of which bore a caption. As he turned the pages of the book devoted to expenses, I noticed some of the headings: "Brooms," "Cotton," "Gauze," "Repairs to Surgical Instruments." There were pages devoted to income also. From left to right, the book was divided into twelve sections, each representing a month; each of these sections in turn was further divided into six parts, representing a period of six years. This book was first introduced into the Presbyterian Hospital of New York by one of the managers of the hospital, who was at that time purchasing agent of the Harriman system. "I adopted it," Dr. Howard went on to say, "at the Massachusetts General Hospital when I was there as administrator, and later introduced it at the Peter Bent Brigham Hospital. It shows me the various items of expense and income, and enables me at a glance to compare the expenditures under any given item up to any period in the year, and the expenditures of this year or any part thereof, as compared with the expenditures for the same thing in preceding years or any part thereof. It makes me incessantly ask the question, 'Why'? It compels me to search out the hidden meaning of abnormal increases or decreases. In short, it gives me the facts upon which to act intelligently in financial matters.

"Then, in the second place," he continued, "I think a hospital superintendent should have a keen sense of humor. It enables him to maintain an even keel and weather many a rough passage. Without it his spirit would become embittered, and this would be reflected throughout the institution down to the errand boy and the scrub woman. Nothing is so highly infectious as the spirit of the superintendent, not even measles."

"Further, a successful superintendent will spare no pains to get intelligent cooperation from his staff." Dr. Howard went on to illustrate this opinion by citing an incident in his early career as a superintendent, when the mechanical devices of hospitals were much cruder than they are now. In the hospital of which he was then superintendent, water was being constantly wasted as a result of allowing the water in the slop hoppers to run uninterruptedly. Arbitrary orders accomplished little or nothing, and the water bills continued excessively high. One of the surgeons, moreover, blind to what Dr. Howard was attempting to accomplish, flatly challenged his right to limit the amount of water he was to be allowed to use.

"But, bless you," was Dr. Howard's reply to the surgeon's challenge, "I have no desire to limit the use of water in the hospital; what I want to eliminate is the *misuse* of water. It's perfectly possible to cut down on water rates 50 percent and still have all the water the hospital needs in order to do first-class work. There is a certain amount of money appropriated for the expenses of the year. If you'll help me to accomplish this result, there will be enough money left to purchase some of the additional instruments and appliances which you need in your department." The surgeon saw the point.

"I won this man," said Dr. Howard, "not by an arbitrary rule, but by letting him see what I was driving at. You can't stop abuse by abusing the abuser."

He summed it up finally, "I think that a hospital superintendent's success is largely measured by his success in hunting out people who will help, rather than hinder, and having found them, in doing everything within reason to hold them. This applies with double force to those who fill pivotal positions on the staff. A spirit of *esprit de corps* must be developed which will lead people to stand by loyally whatever the changing vicissitudes, distasteful though they may often be."

SMITH COLLEGE TRAINING COURSE FOR PSYCHIATRIC AND MEDICAL SOCIAL WORK

Course Requires the Time of Two Full College Years—Separation of Theory and Practice Made Up in Last Two Months' Review

By MARY ANTOINETTE CANNON, Social Service Department, University Hospital, Philadelphia

Last summer Smith College made an academic experiment and a contribution to America's resources in the form of a course of training in psychiatric social work. This course, consisting of two summer months of theoretic work and nine months of practice, turned out about forty-eight graduates, most of whom are now following their calling in military hospitals. Some few have taken positions in civilian hospitals, and other civilian hospitals are eager for workers as soon as they shall be available.

The success of this course, together with the urgent demand for more trained workers, has induced the college to repeat it, extending the time by two months, and to add courses in community organization and general medical social work.

The new courses will begin the first of July, 1919, at Northampton. The first two months will be devoted to an intensive study of psychology, sociology, and the theory of the special subject, whether community organization, social psychiatry, or social medicine. Then will follow nine months of practical work in some hospital social service department or other suitable organization, and the final two months, in the summer of 1920, will again be devoted to theory and to a review of the preceding work. The time spent in the work is equivalent to the classroom time of two regular college years. One month's vacation intervenes between the winter work and the final summer months.

The course differs from those given in schools of social work, first, in point of time, and second, in the arrangement of theoretic and practical work. The separation of theory from practice has been generally considered a grave disadvantage, and is still considered so by most educators. The directors of the Smith College course have added the final two months of review and theory with the purpose of uniting field work and theory more closely than was done in the first course. While this plan still misses the sort of interlocking obtained when each week's work is part academic and part practical, it gains in concentration and especially in the continuity of the field work, the lack of which is a conspicuous difficulty in the courses as given in the technical schools. This is a point of particular interest to the hospital departments which act in the capacity of laboratory for courses of this kind. My experience has included students from the Smith College course giving six consecutive months' full time to work in the department, and students from a school for social work giving sixteen to twenty-one hours a week for from four to eight months, and there is no doubt in my mind that the student who gives full time gets a far better opportunity for development at far less cost of time and energy to her supervisor.

Those who are interested in hospitals know that there is urgent need for trained medical social workers. The hospitals' recognition of this need was expressed in the resolution passed by the American Hospital Association at their meeting of last September, copies of which have been sent to colleges and universities throughout the country. The Smith College course is a step toward meeting this need, and as such commends itself to the thoughtful consideration of all who are concerned with this phase of hospital efficiency.

The Smith College course is under the direction of F. Stuart Chapin, of the department of sociology of Smith College. Miss Mary C. Jarrett of the Boston Psychopathic Hospital is assistant director. Either Mr. Chapin or Miss Jarrett will gladly furnish full information regarding the course and application blanks for those who wish to enroll as students.

ALDEN SPEARE MEMORIAL HOSPITAL

An Operation a Day and Something Over—The Year's Average of this Chinese Mountain Hospital

The operating room of the Alden Speare Memorial Hospital is open to your inspection, but to reach it you must take a trip which might eventually land you in the hospital as a patient! Go to Shanghai, China; thence, brave the typhoons of the China sea; spend a night in the city of Foochow, which has no hotels; take a sampan, or houseboat, at midnight; transfer at 3 a. m. to a rickety, infested launch and endure its discomforts for twelve hours; then spend several days in another sampan, which sometimes has to be pulled through the rapids of the Mintu River by coolies; and, at the end of this appalling trip, you will find the city of Yenping perched high upon a cliff at the confluence of two rivers.

Physician performing an operation, assisted by the Chinese male nurse. Notice the flour bag used as a sheet across the chest of the patient.

The Alden Speare Memorial Hospital, situated in Yenping and supported by the Methodist Episcopal Church, is but a poor affair, judged by western standards. The ramshackle building looks as if it might collapse if it is not repaired soon. The operating room is crude, and so scarce are supplies that the doctor often has to resort to flour bags in lieu of towels.

But do not despise the hospital. It is the only one in an area of 3,600 square miles, and is the only modern agency ministering to the health of seven hundred thousand people. Its sixty beds are always full, and, during the year 1917, the inadequate operating room witnessed 376 operations. More than three thousand individual patients were treated in that same year.

Two American doctors, C. G. Trimble and J. E. Skinner, and a Chinese male assistant whom they are training, make up the staff. The aim of all medical missions is to make the practice of modern medicine and surgery indigenous to the country where they are established.

China is undergoing an awakening of interest in public health in which the missionary physician is the leader. It is to help in this great movement for the development of modern medical science all over the world that the Methodist Centenary movement will devote more than $2,000,000 out of its $105,000,000 world welfare fund to medical work, paying especial attention to the needs of China.

WHAT "THIRTY-TWO" CAN DO

Reconstruction Hospital in the Heart of Chicago Alive With Activity—Returning Health Finds Many Outlets

"Come on, Buddy—sure you can. Thirty-two can do anything!" And with brisk determination the speaker, whose uniform showed two gold service stripes on the empty sleeve that flapped at his side, steered his wounded and hesitant comrade safely through the string of passing automobiles to the park bench across the street, where small groups of convalescent soldiers were lolling in the warmth of the sunny April afternoon. Scores of invalided heroes, gathered about the imposing six-story structure, gave a military aspect to the institution which rises in the heart of one of Chicago's busiest thoroughfares and is known as U. S. General Hospital No. 32.

Originally planned as a hotel, the building was in the process of construction when the government call came for its use as a hospital, and only the very finishing touches were applied with the idea that it was to be used in taking care of wounded and convalescent boys. It is situated at the cross-point of a thriving residental and business district, with the the result that the patients are able to enjoy the advantages of both. Life in its great panorama buzzes at its very doors, and the ordinary complaint of hospital camp monotony is unknown.

But the life without is no greater than the life within. From the moment one enters the door, he is aware of the keen air of interest and the lively, up-and-doing atmosphere which pervades the institution. True indeed was the "buddy's" remark that "thirty-two can do anything!"

Thirty-two assuredly does do anything—and everything. The boys may be wounded, gassed, or the victims of shell shock, but they are far from being out of the race because of their disabilities. Every one of them, from the crippled hero of the Marne who was sketching a lady on the coat hanger he had carved from a remnant of the discarded lumber pile to the husky-lunged "newsie" who sped down the hall in his wheel-chair with the evening papers, was very noticeably "up to something" (as one of the boys expressed it), and was putting all his energy into the accomplishment of his task.

The real work of the institution is done by men of the U. S. Army who are stationed at the hospital and who live in barracks two blocks away. They, too, seem obviously happy and content. In the mess hall, for instance, which occupies a large corner of the ground floor, several of them accompanied the dishwashing process with the whistling of spirited tunes, while another sang outright as he scrubbed the long wooden tables and mopped the cement floor. Opening from the mess hall is the dishwashing room, equipped with modern machinery, and directly beyond is the main kitchen. Here five ranges were going full blast and three cooks stepped about briskly in the preparation of the evening meal. One of them assured me that the task of feeding 450 boys just back from the battle line with appetites keenly appreciative of American dishes, was not an easy one. Much can be accounted for by food, it is said, and one can not wonder at the "pep" displayed throughout the institution considering the exceptionally well-prepared and appetizing meal which was later distributed to the boys. It consisted of vegetable soup, baked spaghetti, American fried potatoes, sweet potatoes, celery, sliced tomatoes, head lettuce, bread, butter, jelly, strawberry shortcake, and coffee.

Beyond the kitchen is the main diet kitchen, in which two cooks and the hospital dietitian work in conjunction with the diet kitchens on each floor. A shoe-shining parlor, a carpenter shop, and the hospital laboratory complete the ground floor—except for the "menagerie," as the boys term it, where the baby guinea pigs squeal and the white mice make the funniest of noises.

The main floor is the administrative floor of the building, containing, as it does, the receiving office, the offices of the colonel and adjutant, and those of the Red Cross and quartermaster, as well as the receiving room and storeroom for supplies. Patients are received at the ambulance entrance, after which their histories are taken, they are given a shower bath and receive clean clothing, and are assigned to the rooms on the upper floors. All clothing is put through the sterilizer erected in the rear of the hospital. Litter cases are taken up on the spacious freight elevator, which is quite convenient to the entrance.

Busy indeed is the Red Cross corner on this floor, where eight permanent workers extend an offer of help to each and every patient of the institution. Here the Home Service man receives all those who are in trouble and wish advice or aid of any kind; here the librarian, who is a worker of the American Library Association, distributes books of every variety to those who care to read; and here the head of the Red Cross recreational department plans the parties, entertainments, auto rides, vaudeville performances, and dances which are weekly scheduled to drive away the "army blues." In order to give the boys the very latest textbooks on the trades and professions, as well as the best in fiction and lighter literature, the American Library Association has made arrangements with the Chicago Public Library to obtain any book in that huge institution within twenty-four hours from the time it is requested. A catalogue of the best novels of the war has been especially prepared for the boys by a representative of the American Library Association.

Reconstruction Hospital No. 32, Chicago

The upper floors are devoted chiefly to the wards and the department offices. The second floor contains numerous two-and-three-bed wards, the contagious ward, and the headquarters of the physio-therapy department, where thirteen sunny-dispositioned aides administer massage treatments. During the month of March a total of 4,900 treatments were dispensed, which is an inspiring figure when considered in the light of health force returned to American fighting men. The northeast corner of this floor opens out into a roof garden, where a course in calisthenics is given each morning from 10:30 to 11:30 for patients for whom such treatment has been prescribed.

The third floor contains the offices of the orthopedic chief, surgical chief, and medical chief, the quiet business-like atmosphere and cheerful aspect of which characterize the hospital as a smoothly-functioning institution. A large portion of the floor is given over to the headquarters of the reconstruction aides, which includes the offices, classrooms, and a small library where the aides may obtain books in regard to their work.

The dentist's office and the eye-ear-nose-and-throat departments are located on the fourth. Three dentists and two assistants are kept busy attending to the mouth matters of the patients and handle on an average thirty-two cases a day. All work is done without charge. The eye-ear-nose-and-throat department treats on an average forty patients daily, the majority of the cases being ear and throat. Operations requiring only local anesthesia are done in this department, while those in which general anesthesia is necessary (nose cases, mastoids, eye operations, etc.) are handled in the operating room upstairs.

A ward of six beds is set aside on the fifth floor especially for negro patients. Here a sturdy darky fighter leaned over his cot and scratched his head in deep thought as he penned a letter to the Sunny South. About twenty colored patients are receiving care at the hospital, but the others are scattered through the wards.

The two large wards (one of 75 beds and the other of 50) occupy the greater part of the sixth floor.

The wards are done in light gray. Light gray is the color scheme throughout the institution, with the exception of the operating room, which is white. The x-ray department and operating suite occupy the remainder of the sixth floor. The records of the x-ray department show an average of twenty cases a day.

THE FULL-TIME STAFF IN THE ORGANIZATION OF THE SMALL HOSPITAL*

The Geisinger Memorial Hospital Serves Large Rural Community—The Full-Time Staff Group Makes Diagnosis Possible—Unique Methods in Philanthropic Service

"If two rural hospitals are opened in towns distant from each other, one with a fixed trained staff, the other of the usual open type permitting all physicians, irrespective of their training, the use of its beds, but with all other conditions equal, the first or fixed staff institution will accomplish twice the good of the second," says Dr. Harold L. Foss, superintendent of Geisinger Memorial Hospital, Danville, Pa., writing in a recent number of the *Pennsylvania Medical Journal*. "A hospital run merely to furnish a group of surgically ambitious but surgically untrained men an opportunity to experiment can attain but little in the community and surely no fame beyond a certain questionable amount within the confines of its own town. In the large cities where competent internists, surgeons, and specialists are plentiful, the visiting staff scheme is, of course, the one *par excellence*, but one of the best solutions of the rural problem is the organization of thoroughly equipped, modern institutions supplying large contiguous areas and administered by trained, permanent resident staffs."

The demand for hospitals of this type and the practicability of the plan of operation has been proved, in Dr. Foss's opinion, by the success of Geisinger Memorial Hospital, which has been established over three years.

Danville, Pa., where the hospital is situated, has 7,500 population, and for over a century had existed without a hospital, a lack which caused little or no concern to anyone. Patients obviously requiring intervention were often sent to Philadelphia, but most patients were treated at home, obscure cases being handled symptomatically, without definite diagnosis.

"At the end of the first year it (the Geisinger Memorial Hospital) had treated 740 cases, and operations to the number of 541 had been performed with a mortality of slightly over 2 per cent. The average number of patients per day had been 29. From its own town it had treated 565 patients, but had also treated patients from 52 other towns.

"The work during the second year nearly doubled and 102 towns other than Danville were represented. A continued increase was maintained during the third year until now, as a total for its first three years, the hospital has records of 3,200 patients having been treated, 2,257 operations performed and hospital service rendered, if represented in figures, amounting to $178,000. The hospital is now filled and there is constantly a waiting list for private and semi-private rooms.

"In our hospital the new patient, particularly if his condition be vague and the problem of diagnosis not possible of prompt solution, is urged to enter the institution for complete study. The necessity of a thorough and painstaking analysis of his condition is briefly outlined to him and it is only the exceptional patient who does not at once grasp the logic of the argument and refuses to give all the time the physician may require.

"From the patient a complete history is secured and this later dictated from notes to a medical stenographer to be transcribed on the typewriter. Routinely a complete urine analysis and a Wassermann test, in many cases both of the blood and spinal fluid, are made as soon as the patient is admitted. A complete physical examination follows. Should anything in the history or in the examination suggest the possibility of a chest lesion, a pair of stereoscopic plates are made of the thorax.

"In carrying out the idea of the 'grouped diagnosis,' a fundamental principle in the fixed staff idea, the patient passes from the clinician to the pathologist, from the pathologist to the roentgenologist, to the laryngologist and to the surgeon until all data which may be of value have been obtained and recorded on the original history and the final diagnosis made. Though the grouped diagnosis scheme is old, it finds its fullest application only in the hospital so organized that experts, in the various fields of medicine, work in constant cooperation to the end that their researches in the individual case when summed up and coordinated will result in as accurate a diagnosis as can possibly be rendered. This plan has reached its highest development in the Mayo Clinic and the methods of organization and case study in use there may well be copied by any hospital, particularly the one organized along the lines of the permanent resident staff.

"Created as a philanthropy, the methods followed in dispensing charity at the Geisinger Memorial Hospital are unique, I believe, in hospital annals. On the discharge of every patient a bill, as near as possible in keeping with his means, is rendered, but enclosed with it is a notice stating that the holder has the privilege of discussing his account with a committee which meets at the hospital two evenings each month. Nearly every ward patient avails himself of this opportunity and appears at the stated time, bill in hand. He then meets a committee, at present consisting of a lawyer, the cashier of a local National Bank and the superintendent of one of the local rolling mills. The hospital's superintendent is present to furnish information as to the extent of the treatment, seriousness and magnitude of operation, etc.

"A frank statement from the patient, which is, of course, treated confidentially, is solicited and usually is willingly given. In 90 per cent of the cases some member of the committee will know the individual or at least will have certain knowledge of his individual resources. A large group is thus disposed of at each meeting in a manner satisfactory to the patient, honorable to the hospital and in such a manner as to preclude imposing a hardship on a worthy patient, and at the same time rendering it impossible for unfair advantage to be taken of the institution's benevolence.

"Many a patient of limited means, who is unable to pay the bill in full, offers, at the dictates of his pride, to pay in part, or even all if given time, and to these a reduced bill is given or the patient pays in part and gives his note without interest for the balance. Thus in its first three years the hospital returned to patients of our community whose individual financial resources had been carefully investigated, cancelled or reduced bills amounting to $57,704.

"Always with the paramount thought in mind, that the institution was primarily created for the needy and with ample ward space for all whose means render it necessary that they seek free treatment, the hospital is attracting a rapidly increasing number of pay patients, so that at present receipts from these cases average over $5,000 per month. All receipts, whatever the source, go directly into the hospital's treasury, the staff receiving no fees, but being compensated on a strict salary basis.

"Many of the antiquated methods employed in American hospitals a century ago, archaic to the last degree, are still in vogue in many institutions and are preserved

*Reprinted in part from a paper read by Dr. Harold L. Foss before the General Meeting of the Medical Society of the State of Pennsylvania, Philadelphia Session, Sept. 26, 1918.

as cherished traditions. The desirability of their change or complete elimination is obvious to the up-to-date hospital administrator, yet any suggestion to that effect usually precipitates a riot. The researches of the American Medical Association, the American Hospital Association and the hospital section of the American College of Surgeons on hospital standardization give great promise of presently relieving many of the ancient ills to which many hospitals have so long been heir.

CONCLUSIONS

"1. Although by no means the only practical method, yet the trained, resident, salaried staff scheme of organization, particularly as applied to the hospital of moderate size, may be made immensely successful.

"2. Such a plan is incomparably the best for the rural hospital, especially if a visiting staff of competent and experienced physicians and surgeons can not be secured in the community.

"3. In such a hospital success will depend on certain fundamental principles: (a) a clearly defined need for a hospital in the community; (b) the construction of an adequate and well-equipped institution; (c) a sound financial basis; (d) the organization of an active, capable board of trustees, composed of not over seven men, all experienced in large affairs and accustomed to the practice of broad, scientific, business-like methods (for such a board to be effective there should be no incumbering list of unnecessary rules and regulations, multiplicity of committees or any such obstructing camouflage); (e) a competent and efficient administrator who sees to the maintenance of high standards in the staff; (f) a comprehensive sensible policy, giving the hospital's executive full authority and responsibility in which he has the complete support of the trustees."

HOSPITAL SMILES

Sam's Good Luck Began Before His Operation—Nationality and a Thirst That Sought to Be Quenched

By EDWARD H. CLEVELAND, M.D., Superintendent, The Hospital and House of Rest for Consumptives, New York City

Two classes of patients in general hospitals are shining illustrations of that wondrous touch of nature that makes the whole world kin—to wit, our colored brethren and sisters, and the Irish. Sam Craig was fairly recovered after an operation and was preparing to leave a large city institution when a visitor who was interested in the patient remarked, "Well, Sam, I wish you good luck when you go out again!"

The reply, emphasized by a winning smile, was, "Oh, well, ah done had mah good luck befo' ah evah come in!"

"How was that, Sam"?

"Well, yo' see, mah wife, she done run away with anothah fellah!"

To be born a philosopher is surely a blessing.

After being disappointed through the failure of a convalescent patient to keep a good position obtained for him as a helper in the store-room of the hospital, the same visitor spoke of the incident to a sympathetic patient, a native of the sunny South, with this comment: "The fact seems to be that more than half the people in the world are to some degree weak in mind, and the rest of us have to help take care of them. Quick as a flash came the reply, "Yassah, yassah! An' the sad paht of it is there's so few of us left!"

A tall, thin, sandy-haired man, of middle age or beyond, sat silently and solemnly in a steamer-chair, waiting for his strength to return. Hoping to bring a smile to a somewhat grim visage, or at least to brighten a bit the current of his thoughts, a visitor remarked to him casually: "My friend, you look as if you might have a little Scotch in you, as well as Irish, maybe."

The response came quickly, with a twinkle of the eye, "Well, maybe I might, but not yet this morning!"

Which could have been construed as the acceptance of an implied invitation, or a preliminary offer to accept in case of a possible opportunity, and reminds one of, Casey at the banquet: "Is Casey good for a dhrink? Has he had one"?—with Casey's quick answer, "He has! He is!"

A NORMAL SHOE FOR A NORMAL FOOT

Y. W. C. A. Backs Movement to Make Beautiful and Comfortable Shoes Accessible to Women

Can the shoemaker build a shoe that will keep normal a normal foot? And once it is built, will the public be brought to see the beauty of the product? Not so many years ago we gave our admiration to the small, tightly laced waist. Today we laugh at it and tomorrow we shall be equally amused by the pencil-point toes and high heels that tilt the human foot to the angle of a horse's hoof. The war made low heels beautiful on Fifth Avenue, and consequently on Main Street; if it had lasted a little longer, women would, of necessity, have gone the whole way with the shoe problem. The shoes of the future will not be "prescription" shoes; they will not cater to deformities, but they will be built to conform to the normal lines of the foot.

The national board of the Young Women's Christian Associations, through the health division of the Bureau of Social Education, has started a drive to get this shoe for American women and to popularize it. The association have all the health arguments. They have a national membership of four hundred thousand women to listen to them, but they cannot get this shoe without the cooperation of the manufacturers and dealers who make the shoes and determine the styles. To bring about this cooperation, a conference with leading shoe men was held recently at the headquarters of the national board of the Y. W. C. A. in New York.

The manufacturers have a difficult problem, but not an impossible one. They must produce a low shoe, with a low heel and a flexible shank that will allow enough exercise of the muscles of the arch to keep them strong, a shoe with enough room for the toes and a straight inner border, because the foot is naturally straight on the inner side. They must make the shoe attractive to the discriminating taste by using their knowledge of leathers to procure variety and fineness of finish for both day and evening wear. Will the shoemaker do it? When he does, the national board of the Young Women's Christian Association will be back of him. Every woman who wants to wear the "normal line" shoe must be able to get it. All samples of shoes will be examined, an alphabetical list made, according to states and cities, of all the firms that carry these shoes.

This list will then be sent to local associations all over the United States, so that no one can say, "We would like to get these shoes, but we do not know where to find them."

"Ridicule," says some one, "is like a blow with the fist; wit like the prick of a needle; irony like the sting of a thorn; and humor the plaster which heals all these wounds."

Fig. 1. General Ward No. 4 of Madanapalli Sanatorium, where fresh air and an out-door life lure back health to tuberculosis patients of the Far East

A TUBERCULOSIS SANATORIUM OF THE EAST INDIAN HILLS*

Picturesquely Situated, It Offers Ideal Advantages to Those in the Early Stage of Tuberculosis—Patients Include Many Nationalities, Races, and Creeds—Well-Organized Plan of Treatment Based on Graded Exercise and Rest

As the train trundles slowly up the small ghat between Madanapalli Road Station and Pakala, the long, low buildings of the Madanapalli Sanatorium stretch out leisurely over the rough hills of the Mysore Plateau. Situated on a small ridge about one hundred feet above Madanapalli level, the sanatorium nestles in the midst of hills that sweep off to the horizon in all directions. To the traveler, these hills are a source of wonder, for the constantly-changing light which falls on them shrouds them in a continual halo of beauty. To the patients, they are the source of life itself, for they afford the exercise in walks and climbing which means to them an early return to health.

The sanatorium is situated at a considerable distance from the station, and the only method of conveyance is the primitive jutka. Trains arrive at midnight and early in the afternoon. As one ascends the plateau from the plain the air grows perceptibly cooler, but it is brisk and most invigorating to the patients who are accustomed to the open-air life. The temperature is fairly even, varying about 20 degrees between day and night. Heat comes on early in the year and at times is quite excessive. In January the range is from 50 to 80 degrees and in May, from 70 to 95 degrees, while the mark of 105 in midsummer is nothing unusual. Almost no rain falls between December and April, but the slow increase from May to November makes the yearly average 27.91 inches.

As the sanatorium is still in its infancy (it was opened July 19, 1915), but few of the trees around it have as yet attained the size which makes them valuable for use as shade, and the winds which sweep over the plateau from April to October are at times quite troublesome and trying. The buildings are surrounded by jungle trees which were originally the size of shrubs, but which, under care, are growing quite rapidly. Planted only two years ago, many of them, such as the rain tree and the flamboya, are already eight and ten feet high. Because of financial conditions, it has not as yet been possible to complete the water scheme, and all water must be carted from a well in the tope at the foot of the hill to the top two furlongs away. Another well on the top level behind a small hamlet directly across the road from the sanatorium and quite two furlongs from the various shelters, furnishes water for the personal use of caste patients and their friends who have received permission to use it.

The sanatorium is designed and equipped for the care

* This article is drawn from information furnished us by Miss A. Tatze, acting nursing superintendent, whose letter appears on page 468 of this issue.

Fig. 2. Some of the male patients taking special exercise under medical supervision.

of tuberculosis invalids who have a fair prospect of recovery and for patients who, for one reason or another, are predisposed to the development of the disease. This being the case, it is most difficult to arrange for the care of patients in an advanced stage of the disease, and such patients are not sought, as a general rule, since the recovery of convalescing invalids is hindered when a very sick one is in their midst.

The institution consists of five general shelters, containing seventeen beds each, two for women and three for men; fourteen private shelters with separate kitchen, for private patients of any sex or caste; three private shelters with separate kitchens, built more especially for women; four private shelters with separate kitchen, more suitable for gosha ladies; two private shelters with separate kitchen, for Europeans; one general ward of four beds, for Anglo-Indian women; a central administration building; and a conveniently placed lecture hall, in which is a creditable library. Plans have been drafted for an infirmary with an operating room for serious emergencies. This will be of great assistance in caring for patients who, in the course of their stay at the sanatorium, develop severe complications which need careful nursing—and sometimes an operation—before they can be returned to the open shelters.

Fig. 4.—A corner of the European private shelter. The quarters for ward attendants are shown in the distance.

Fig. 3. Almost hidden by the tropical trees which surround it is General Ward No. 1 devoted to men.

As yet there are no *chatrams*, rest houses, hotels, or travelers' bungalows for the use of friends and relatives who bring the patients to the sanatorium or who come to visit them, and they must drive the four miles into Madanapalli and depend on some friend, acquaintance, or guest house to take them in. A travelers' bungalow and rest houses are most urgently needed and will undoubtedly be among the earliest additions when funds become available. The branch post office at Madanapalli has recently been opened.

Although the institution is intended only for tuberculosis patients in the earlier stages, many incurable ones are, of necessity, constantly received, and the best results will never be obtainable until there are fewer incurable patients, so that all the resources may be devoted exclusively to the care of convalescents. Patients who can ill afford the traveling expense come from distant places, suffering from chronic bronchitis or asthma, in which no diagnosis of tuberculosis can be made. They are kept long enough for a thorough study of their condition to be made and are then sent away with careful instructions. When asked why they come, the invariable reply is that they heard it was a "cough hospital" and, as they had the cough, they decided they must be fit candidates for entrance. Others come in an almost dying condition, and, not wishing to remain under the circumstances, scarcely reach home before death overtakes them. Most of these patients, needless to say, come unadvised or against advice to the contrary. Often it is hard to force the sad truth of "no hope" upon them, and many remain until it is too late to reach their homes before death overtakes them. On the other hand, there are plenty of instances where

Fig. 5. One of the shelters for private patients. To the right is General Ward No. 5 for women.

the discovery is made in time, the business of getting well is entered into with an intelligent good will, and the program of work, rest, or play is followed most scrupulously,

Fig. 6. One of the youngest patients at the sanatorium, with her mother.

with the result that the goal of a complete recovery is reached within a short time.

One of the most difficult problems which faces the sanatorium is what to do for the patient who has recovered from the acute stage of the disease, but whose case is far enough advanced to make a certain cure practically impossible. Under rest, good food, and graded exercise, this class of patients become wonderfully strong and healthy-looking, but there will always be bacilli in their sputum. When they recover from their original weak state and are able to take any amount of hard exercise at the sanatorium, they are sent home and return to work. If they are financially comfortable, there is little chance of trouble; but, if they are poor, they return to the very conditions which made them ill. Through the long stay in the sanatorium which such cases require, they have usually lost their positions and must seek others. In the meantime, the friends or relatives who have helped them while in the sanatorium are generally content to lose sight of them, feeling that their duty has been done, although, in reality, that is the very time when their help is most needed, to provide the patient with proper food and living conditions while seeking employment. The sanatorium is unable to follow them up after they have left, and often, because they are not helped to tide over the period of idleness, they fall back into insanitary living conditions and eventually return to the sanatorium with the "cough" advanced to such a stage that there is nothing left for them but death.

A day school, started for the children of the staff and attendants of the sanatorium in July, 1918, has now a total of 21 pupils. The library in the lecture hall has proved of immeasurable service and is greatly appreciated by the patients; in fact, the total of 100 rupees which has been invested in equipping the library with standard books is considered money well spent, for the volumes have helped to pass many an hour which would otherwise have been most dreary. Through weekly contributions a graphophone has been purchased, for which a supply of records has been borrowed. A magic lantern, presented to the sanatorium by the patients and their friends as a token of esteem, provides pleasant and profitable enjoyment, while the tennis courts and croquet grounds recently opened add much in the way of diversion.

The daily routine is conducted on a well-organized plan. The principle upon which the treatment is conducted—that of graded rest to a certain stage, followed by graded exercise and graded work—requires that each convalescent patient should do a certain amount of work according to his stage of convalescence. But the smallness of the staff and the multifarious duties connected with the rapid growth of the sanatorium have made the graded-work program something to be developed in coming years. One real danger in connection with the patients who have to undergo a prolonged period of enforced rest is that, by the time they are restored to health, they will be so accustomed to an idle life as to be unfit for the life of the world to which they must return. This is where graded work proves of benefit, in that it gradually fits the patient for a return to active life, both in the effect it has upon the disease itself and in the cultivation of a taste for work.

Patients are received from all districts in Madras Presidency except Ganjam, from all the native states in South India, and from many distant parts of the realm. The records indicate a constantly increasing number of Mohammedans, Anglo-Indians, and Europeans. Students, housewives, and teachers form a large percentage of the patients. That considerable progress is being made by the institution is shown by a comparison of statistics for succeeding years, such as the following: the positive results percentage for 1918 was 80.09, as against 71.3 in 1917; arrested and improved cases showed a percentage of 60.55 in 1918, while in 1917 they totaled 55 per cent only; the average length of stay in 1918 was 143 days, as against 184.9 the year previous.

The total number of patients admitted in 1918 was 238 (147 male and 91 female), comprising Indian Christians, Independent Christians, Hindus, Mohammedans, Anglo-Indians, Europeans, and Parsee. Following is the range of occupations presented: students, teachers, merchants, clerks, government officials, landholders, servants, wives of vakils, catechists, housewives, missionaries, mechanics, school boys, school girls, carpenters, police constables, beggars, zamindars, quacks, and wandering tribes.

Mr. J. Royal is the catechist and general manager of the sanatorium, and the medical staff consists of Louisa H. Hart, M.D., physician-in-charge; Miss M. E. MacDonnell, nursing superintendent; Miss A. Tatge, acting nursing superintendent; Mr. M. Davis, L.M.P., medical assistant; and Mr. S. David, laboratory assistant.

Testimonial Dinner for Dr. H. B. Howard

The list of guests at the testimonial dinner given for Dr. H. B. Howard at the Hotel Biltmore, New York City, May 16, reads like an excerpt from a hospital "Who's Who." Dr. Howard has been for more than ten years superintendent of the Peter Bent Brigham Hospital, from which he has recently retired. "You know, of course," says one of his colleagues, "that Dr. Howard has been one of the most active men in stimulating progress in modern hospital work."

The men who were invited to attend the dinner were Dr. C Irving Fisher, formerly of the Presbyterian Hos-

pital, New York City; Dr. Henry M. Hurd, Johns Hopkins Hospital; Dr. Winford M. Smith, Johns Hopkins Hospital; Dr. Thomas Howell, The New York Hospital, New York City; Dr. Renwick R. Ross, Buffalo General Hospital, Buffalo; Dr. Joseph Howland, Massachusetts General Hospital, Boston; Dr. Frederic A. Washburn, Massachusetts General Hospital, Boston; Dr. W. L. Babcock, Grace Hospital, Detroit; Dr. Henry W. Pollack, Massachusetts Homeopathic Hospital, Boston; Dr. S. S. Goldwater, Mount Sinai Hospital, New York City; Dr. Charles H. Young, Presbyterian Hospital, New York City; Dr. John J. Dowling, Boston City Hospital, Boston; Dr. Andrew R. Warner, Lakeside Hospital, Cleveland; Dr. John H. Nichols, State Infirmary, Tewksbury, Mass.; Dr. John M. Peters, Rhode Island Hospital, Providence.

RED CROSS AGAIN EXTENDS ITS SERVICE

Will Supplement the Work of the United States Public Health Service in Hospitals at Home

At the request of Surgeon-General Rupert Blue of the United States Public Health Service, the American Red Cross has agreed to provide supplemental comforts and recreation for persons under treatment in the thirty-two hospitals operated by the service throughout the country, the arrangement being designed primarily in the interest of discharged soldiers, sailors, and marines who are being cared for at these institutions. Announcement of the extension of Red Cross home service work to these hospitals, which have a total bed capacity of close to 10,000, came recently from Red Cross headquarters.

In addition to the sick and disabled American fighting men who will enjoy the benefits of the latest activity of the Red Cross, are patients from the following branches of government service, only persons in the employ of the Federal government being admitted to the hospitals of the United States Public Health Service: Army and navy nurses, male and female; patients of the War Risk Insurance Bureau; merchant marine seamen; seamen on boats of Mississippi River Commission; officers and enlisted men of the United States Coast Guard; officers and employees of the Public Health Service; keepers and assistant keepers of the Lighthouse Service; seamen of the Engineer Corps of the United States Army; the personnel of the Coast and Geodetic Survey; civilian employees entitled to treatment under the United States Employees Compensation Act; employees on army transports, not officers or enlisted men of the army.

Red Cross workers with long training in home service work in army cantonments will endeavor to bring all the sunshine possible into the lives of patients, supplying them with such additional comforts as bathrobes, pajamas, socks, sweaters, etc., and arranging for ward entertainments for those unable to get about and more suitable entertainment for those who are convalescent. Moving pictures, vaudeville, band concerts, and motor rides will help make the lot of the patients more endurable. Through cooperation with the American Library Association, the Red Cross will see to it that none of the patients lack reading matter, provision having been made for a regular distribution of books and magazines. Other features of the Red Cross service will be daily visits to the patients, the writing of letters to relatives of the latter and the performing of any task that may tend to cheer them. Provision has also been made for the entertainment of the nurses and attendants of the hospitals.

The hospitals of the United States Public Health Service are located at Boston; Portland, Me.; Vineyard Haven, Mass.; New York, Buffalo, and Dansville, N. Y.; Waukesha, Wis.; Pittsburgh, Baltimore, Augusta, Ga.; Jacksonville, Fla.; Savannah, Key West, Wilmington, N. C.; Memphis, Tenn.; Greenville, S. C.; Alexandria, La.; New Orleans, Mobile, Montgomery, Ala.; Cleveland, Louisville, Evansville, Ind.; Cairo, Ill.; Chicago, Detroit, St. Louis, Houston, Texas; Fort Stanton, N. M.; Palo Alto, Calif.; San Francisco and Port Townsend, Wash. The hospitals at Evansville and Fort Stanton are for tuberculosis patients.

In his letter to the American Red Cross asking it to undertake the work, Surgeon-General Blue said in part:

"This cooperation is all the more desired owing to the fact that there are certain legal limitations which will prevent the Service from supplying all the delicacies, special amusement features, etc., which the discharged soldiers and sailors are undoubtedly entitled to receive in some way from the community."

American Nurses Honored

Ten American Army nurses have been awarded the Médaille d'Honneur des Epidémies by the French Government, according to word that has just reached national Red Cross headquarters. The presentation ceremony took place at A. R. C. Military Hospital No. 112, Auteuil, in the presence of a distinguished gathering, twenty-three officers of the American Medical Corps and seven enlisted men of the army receiving the decoration at the same time.

The nurses honored by France were: Bessie Mae Warwick, McDonald, Pa.; Rose A. Cassidy, Brandywine Summit, Pa.; Karen M. Lauridsen, Astoria, Ore.; Agnes W. Reid, La Crosse, Wis.; Pearl Worley, East Greenville, O.; Edith L. Hadsall, New Rochelle, N. Y.; Lillian E. Radcliffe, Montreal, Can.; Esther V. Hasson, Washington, D. C.; Myrtle Brondel, address not given; Mary C. Gavin, address not given.

The Fight With Influenza

Peace came sooner than many people had expected, but the hundreds of women who enrolled in the Red Cross had their chance for service after all. Instead of helping to defeat the Boche they were called upon to fight as grim a battle in the influenza epidemic over here. The great organization of the Red Cross rose to the emergency, complicated though it was by the explosion of a powder plant

Making influenza masks in a Red Cross workshop.

in the East and great forest fires in the Northwest. Their work was expedited by the civilian help which was eagerly proffered and which kept the Red Cross workshops full.

HOSPITAL, MEDICAL AND SPECIAL MEETINGS

OHIO HOSPITAL ASSOCIATION

Fifth Annual Meeting Held at Cleveland, May 20-22—Practical Help and Inspiration in Speeches and Discussion—Commercial Exhibit Proves Success

Dr. A. R. Warner, president of the association, devoted his address to the subjects of hospital standardization and the correlation of the various health activities in a joint program.

President's Address

While the war did not directly bring any solution to the problem of hospital standardization, it did add impetus to the movement. Dr. Warner sketched the progress of the efforts which led to the establishment of the American Conference on Hospitals, as outlined in THE MODERN HOSPITAL last month and in this issue, and emphasized the need of cooperation on the part of all the agencies concerned in hospital work.

The health program of the country, he said, will be not merely amended but rewritten. As an illustration, he cited the recent legislation passed in Ohio, transferring the control of hospitals from the various bodies which had previously dealt with the subject to the Ohio State Board of Health; giving county commissioners authority to make contracts with private hospitals for the care of the indigent sick; reorganizing the system of local health officers by reducing the number of districts; providing for an investigation by a commission of the various organizations and institutions bearing on health.

Dr. Warner believes that it is high time that hospitals as medical institutions acquire a definite policy toward health insurance.

Tuesday afternoon was devoted to round-table discussions under the chairmanship of Sister M. Genevieve, reverend mother St. Elizabeth's Hospital, Youngstown, and Mr. F. E. Chapman, superintendent of Mount Sinai Hospital, Cleveland, respectively.

The Hospital Feeding Problem

Miss Marguerite Hawks, head dietitian of the U. S. Army base hospital at Camp Sherman, described the methods used in feeding 1,600 men there. The food is distributed by trucks, each carrying six food boxes made on the principle of the steam cooker, in which the food containers are placed surrounded by boiling water. In the mess hall, cafeteria service is employed, except for those crippled patients, who, though able to come to mess hall, are unable to stand in line or to wait on themselves. These men are allowed to come to mess ten minutes before the line for the cafeteria service forms and are waited on at table. The raw food cost is 50 cents per day per patient for the regular diet and 58 cents for the special.

Mr. Chapman asked how many superintendents actually know what their food cost is.

Dr. Warner remarked that the general practice is to reckon the raw food costs apart from the cost of service. He is convinced that this is correct because it furnishes the only feasible basis for standardizing food costs, inasmuch as the service varies greatly in different hospitals.

Sister Genevieve remarked that there was much more trouble in satisfying the patient than in figuring costs. At home the patient is waited on and catered to by her family and friends without cost. In the hospital she has to pay for a standardized service, which at $1.50 to $3.50 a day does not include special dainties or the consultation of her taste.

Mr. Chapman asked how many dietitians were consulted by their superintendents in regard to the buying of food stuffs. The discussion revolved about the question whether or not the dietitian should do the buying.

Miss Deaver, the dietitian of Mount Sinai Hospital, does not believe that any man or woman on earth, not actually concerned in the dietetic work, is competent to buy for the dietitian. She was ready to fight for this principle.

Mr. Chapman would not let Miss Deaver "get by" with that. He does not believe that a dietitian's training qualifies her for buying, and, furthermore, he believes it a wrong principle that the consumer should have anything to do with the buying. He believes that the dietitian's specifications in regard to the kind and quality of food that she desires should be followed absolutely, but that the buying should be in other hands.

Dr. Warner of Lakeside believes absolutely in the independence of the dietetic department and in the kitchens and cooks being under the dietitian. The purchases should conform to the dietitian's requirements, but she is not the proper purchasing agent.

Miss Parker, dietitian of Christ Hospital, Cincinnati, and Dr. Crew, superintendent of Miami Valley General Hospital, both believe that a competent dietitian is the proper and satisfactory person to purchase foods.

Dr. Warner believes that it depends on the institution. In a comparatively small hospital the dietitian may be the person best qualified to do the buying. This, however, does not alter the principle that the consumer should not be the purchaser. Lakeside Hospital has had all power to make purchases taken away not only from the department heads, but also from the superintendent, and Dr. Warner is convinced by the reaction on the salesmen that it is a wise provision.

Food costs were given by various persons in the audience as 49 cents a day and 15½, 20 and 18 cents a meal.

Hospital Building

Mr. Chapman remarked that most hospitals, like Topsy, "just growed" without definite planning or correlation to needs. He cited the case of a 225-bed maternity hospital in a community in which there are not 225 new babies to be taken care of, and which, by the terms of the bequest under which it was built, can never be used for any other purpose.

Miss M. A. Lawson, superintendent of Akron City Hospital, which was originally built as a complete and self-contained unit, gave her experience. When the needs of the city outgrew the institution, the trustees dreamed a beautiful dream and proceeded to build the end of the dream first. The result is a new unit full of defects in detail and in plan. In a new unit of 130 beds, no provision whatever has been made for storage.

On the other hand, the Sisters of Mercy at Pittsburgh gave three years to the formulation of their needs before they began to build or even to have an architect prepare plans. The result is a hospital which almost perfectly meets the needs of the people who work in it.

Dr. Warner said that at Lakeside they had studied their needs for five years and had not yet called in architects to draw the plans for the new buildings. They had called in a man who knows something of hospital building. In his opinion, the man who plans the hospital must know more about its operation than the man who runs it, and much about many other things which the hospital administrator does not need to know about.

Views on the question of hospital flooring were next called for.

Mr. Owsley is in favor of clear hard maple floors in private rooms and wards. Linoleum on a cement base, shellacked and waxed, makes a beautiful floor in his opinion.

Sister Genevieve remarked that shellac will not stand washing and that cork and linoleum are destroyed by the strong cleaning powders which must be used in wards.

Mr. Chapman's preference is for wood or linoleum in wards and private rooms, hexagonal tile in diet kitchens, Corry tile in main kitchens, and cement in service rooms. He has had little experience with cork, but finds it good in elevators.

Miss Lawson found that interlocking rubber tile gave most satisfactory service in wards and corridors for fifteen years. The cost fifteen years ago was $1 a square foot; it is much higher now and the expense, in Mr. Chapman's opinion, would now be prohibitive.

Dr. Crew found that cork with all pores filled with paint, gave satisfactory service. He likes oak floors in wards and private rooms. The hospital, he says, is now catering not to the homeless but to people of means, and must introduce something like hotel service. Mr. Chapman remarked that no white furniture is used in the private rooms of Mount Sinai.

Wednesday morning was devoted to a discussion of laundry and general administrative problems.

Modern Laundry Methods

Mr. Norman C. Collacott, manager of a Cleveland commercial laundry, advises that in planning a laundry, a hospital should first secure its equipment and then build around it. To leave the plan to the architect may mean continual unnecessary expense for steam and labor. The ceiling should be 15 feet high; the walls, white enamel and kept clean. The windows and fans should be so arranged that the air is changed every three minutes. If the floors are concrete, felt mats should be provided for the laundry workers to stand on. Alternating current should be used if possible. A water-softener will pay for itself in a comparatively short time, as it eliminates the necessity for bleach.

The washing machine should be as large as possible; 42 by 84 is a good size. One small machine is advisable for stockings. Hot water should be abundant. Facilities for discharge should be ample—one cannot get rid of the waste too quickly.

Equipment should be over capacity, for it is better that a machine should be idle for a short time than that the workers should be idle for lack of machines. The hot water should be 180 degrees and the steam pressure 100 pounds.

The welfare of workers is an important consideration. A hot lunch at noon is a paying investment. No employer can do too much for the welfare of his employees. It is well not to leave this matter to the head of the laundry, but for the head of the hospital himself to keep the office door always open to employees.

The establishment of the Cleveland Hospital Council suggested to Mr. Collacott that it might be well to have in each large city an expert laundry consultant. He questions if 10 per cent of hospital laundries operate within 50 per cent of their efficiency.

Mr. Collacott's paper was followed by round tables under the chairmanship of Dr. Bachmeyer of Cincinnati.

Round Tables on General Administrative Problems

It seemed to be the general experience that hospital laundries are badly conducted by people with an understanding of an ideal laundry system. Mr. Chapman believes that the trouble is not so much in the laundry itself as in the fact that it is connected with the hospital. The control of linen may be perfect in the laundry but it cannot be controlled in the wards. "There ain't no such animal as an efficient hospital laundry."

Dr. Warner, called on for his experience in the conservation of gauze, said that Lakeside had been washing gauze for eight years with excellent results. Gauze purchases have come down from 56,000, 50,000, and 25,000 yards a year to 18,500. The use of gauze in the hospital amounts to 500,000 yards a year. It is necessary to buy a better quality of gauze and to use made dressings

Ohio Hospital Association in convention in the Hotel Statler, Cleveland.

in order to stand washing. The expense of washing is small in comparison with the cost of gauze. The soiled gauze is put into bags and is first washed and then sterilized in the autoclave before being touched. The method of checking sterilization, described in Dr. Warner's article in the May issue of THE MODERN HOSPITAL (p. 367), insures that no unsterilized gauze be used.

Mr. C. B. Hildreth of St. Luke's Hospital, Cleveland, discussing the out-patient department, emphasized the importance of the admitting clerk, the social service worker, and the nurse. To meet the needs of the patient, generally of the working class, evening venereal disease clinics are most convenient. The venereal clinic is often a practically self-sustaining pay clinic. Owing to the state compensation law and the industrial insurance carried by plants not protected by state insurance, the accident and emergency departments for dispensaries located in factory districts can be made a source of considerable revenue in the state of Ohio if properly organized. St. Luke's Hospital last year cared for nearly 4,000 accident cases. As the hospital collects for the anesthetics, dressings, and x-rays, the department showed profit at the close of the year, although a paid staff of workers was employed.

Dr. Warner said that hospital accounting systems consist of two parts. The first part, which is merely keeping track of the money received and paid out, is a simple matter of bookkeeping. The second, which is the use of these figures to gain information, is a more difficult matter. Accounting costs money, and if the information gained thereby is not used, the money is wasted. One important feature of hospital accounting which should be standardized is the method of classifying patients. Patients should be classified as pay, part-pay, and free patients.

The afternoon session was devoted to a report by Rev. A. G. Lohmann, superintendent of the German Deaconess Hospital, Cincinnati, on Ohio legislation bearing on hospitals, and to a discussion of hospital standardization.

What is Hospital Standardization?

Mr. John G. Bowman, director of the American College of Surgeons, gave the answer as: "Thinking alike on a few fundamental factors in the right care of patients." These fundamentals include staff organization for the purpose, proper records, and adequate laboratory facilities and their use. The public is coming to demand these fundamentals. A demand for the use of the operating-room at 11 a. m. today, in a case not one of urgency, should be denied if the surgeon can not produce adequate records; and a surgeon who carries off the gross specimen after operation, instead of sending it to the laboratory to be examined, should be denied the use of the hospital unless he can explain his action satisfactorily.

The Problems of Standardization and How to Meet Them

Mr. F. E. Chapman, superintendent of Mount Sinai Hospital, Cleveland, believes that the most important factor in the standardization of a hospital is the establishment of a morale in the personnel that will make improvement possible. One way of accomplishing this is by calling together the medical men working in the institution, "selling" them the idea or the ideal and inducing them to organize for efficiency by appointing a representative group to draw up rules and establish technique. This does not imply a closed-staff organization.

The problems which must be solved before the medical work of the hospital can be made efficient include the selection, based on analysis of their end-results, of competent medical men to practice in it, which necessitates the keeping of proper case records, which involves the provision of adequate means for making such records. Although it is difficult to imagine a factory doing a business of over ten thousand dollars a year without paper records, scarcely 25 per cent of the hospitals of the country maintain medical records worthy of the name. The solution of the record problem in large institutions well provided with interns, medical stenographers, etc., is easy, given the will to do it. The problem is difficult in small institutions which are unable to secure interns. Here it may be solved by the employment of a trained hospital worker (preferably a nurse) to take the initial history, accompany the physician on his rounds, and transcribe in detail the physical findings. If the hospital is too small to require all her time for this work, the rest of her time can be employed in the laboratories.

Efficient records include, as a minimum: (1) complaint, in patient's own words; (2) family history; (3) personal history in detail; (4) physical examination in detail; (5) detailed operating room notes; (6) detailed progress notes; (7) detailed x-ray findings; (8) bedside and nursing notes; (9) discharge notes and diagnosis.

Recent medical progress has been so rapid that it has been very hard for hospitals, particularly the smaller ones, to keep up with the times. In large hospitals the volume of work justifies the employment of a competent laboratory man, but such a man would not be attracted to a small institution. Such a hospital must make arrangements with a hospital in a nearby center. The expense is no reason for failure to provide laboratory facilities, for they are just as necessary as operating-room facilities. To provide the means, it is suggested that the per capita expense of laboratory service be estimated and assessed on every patient, with an explanation. This will remove the temptation, present where a special charge is made, to neglect laboratory examinations in doubtful cases in which the patient is not well able to pay.

The hospital will be doing a public service in encouraging local practitioners to make use of its x-ray facilities, first establishing beyond a question that the patient will be treated as a consultation case only, and returned to the individual referring him for treatment.

Better Health Through Better Hospitals

Rev. Charles B. Moulinier, president of the Catholic Hospital Association and regent of Marquette University, said that, much as he loved the medical profession, with which he had been intimately associated for the past five or six years, he believed that the individualism of the medical man was the most serious obstacle to reforms necessary for the good of the patient. Instead of medical men standardizing hospitals, it was for the hospitals to standardize the medical men.

The Wednesday evening session was devoted to talks by Dr. John A. Hornsby, hospital and health consultant, Washington. Father Moulinier, regent of Marquette University, Milwaukee, and Mr. John G. Bowman, director of the American College of Surgeons.

War Hospitalization

Dr. Hornsby said that the war had initiated a new epoch of hospitalization and health. Some things done during the construction of war hospitals were so good as to serve as models and others so bad as to be horrible examples. He told of the erection of a ward for thirty-five beds at Fox Hills, Manhattan Island; the grass was growing on the site in the morning when the workmen arrived. By night the building was up, plumbing and

electric wires in place and patients in their beds. On the other hand, more money had been spent in the construction of flimsy shacks than would have sufficed for the erection of steel and concrete buildings. Illustrating the wide range of construction type, he mentioned the erection of one-bed wards for contagious cases and 150-bed wards in the debarkation hospitals, which served merely as distributing centers. The purpose makes all the difference in the world in the acceptability of plans.

The Right to Health in Ohio

Dr. A. H. Freeman, state commissioner of health, who was to have spoken on this subject, being unable to be present, Father Moulinier spoke in his stead, saying that every state in the Union and every province in Canada is wrong in its legal enactments, supposed to be for the protection of the citizen's right to health. He instanced the recent Ohio legislation granting Christian Scientists, osteopaths, chiropractors, naprapaths, and others the right to practice. The blame he said rests ultimately on the past narrow-mindedness of the medical profession. There is a grain of truth in each of these fads and sects and this grain of truth the medical profession has in general scornfully rejected. Father Moulinier looks forward to the time when all these sectarian practitioners will work under the direction of the qualified medical man as technicians.

The Thursday morning session was devoted to a discussion of health insurance by Mr. John A. Lapp, editor of MODERN MEDICINE, and Dr. Otto P. Geier, Cincinnati.

Health Insurance as a Social Policy

The trend of the times indicates with certainty that health insurance will be adopted as a social policy in this country. Physicians and hospitals should, therefore, give attention to the organization so that the proper plans for medical service shall not be overlooked.

Sickness is a tremendous burden upon the people as a whole and it falls with crushing force upon those who happen to be sick. If sickness were evenly distributed, there would be no need of health insurance. Each person could stand the nine days of sickness which is the average for all people, but sickness falls unevenly. Twenty per cent of the workers suffer a disabling sickness each year lasting more than seven days. That means in about 400,000 workers, 65 per cent of those, or 260,000, are sick for less than thirty days; 19.7 per cent are sick from four to eight weeks; 6 per cent, or 24,000, are sick from eight to twelve weeks; 3 per cent, or 12,000, are sick for more than six months; while 1.3 per cent, or 5,200, are sick for more than a year.

These figures indicate the need of insurance. The worker who suffers more than four weeks of sickness is bound to be economically handicapped and large numbers are bound to be overwhelmed. Dependency and destitution follow with absolute certainty. Insurance would distribute the risk by the creation of the fund through payments by employer and employee, from which a part of the losses of wages would be paid and the entire medical care provided.

Health insurance is simply the creation of a human depreciation fund in the same manner as business now provides a depreciation fund for material things of the plant.

Prevention of Diseases Versus Compulsory Sickness Insurance

Dr. Geier being unable to be present, his paper on this subject was read in his absence. He has no patience with the present program of health insurance. This program is inadequate in that it does not cover the unemployed, the unemployable, and the defectives. An adequate wage, made possible by increased productivity, insured by a comprehensive health program, in his opinion is the best protection against sickness. He believes that health insurance administered by the state must necessarily be wasteful because governed by political considerations and that the medical and surgical service given tends to be inferior in quality.

The Rights of Hospitals and of Osteopaths Under Recent Ohio Legislation

The question of the right of an osteopath to demand the privilege of practicing in hospitals under recent legislation came up for discussion. The last session of the Ohio legislature gave osteopaths the right to practice surgery after passing examination on the subject before the state medical board. Dr. Warner, president of the association, called attention to the facts that, in the first place, no osteopath had the right to practice surgery until such examination had been passed, and, in the second place, that any hospital not controlled by the state or municipality had the absolute right to refuse even a properly qualified practitioner the privilege of practicing in the institution, hence it was under no obligation to receive a practitioner whom it deemed unqualified. In state or municipal hospitals, the patient comes under the control of the hospital staff, and thus the question of practice by an osteopath would not arise.

Election of Officers

The officers elected are: president, Rev. M. F. Griffin of St. Elizabeth's Hospital, Youngstown; first vice-president, Mr. F. E. Chapman, superintendent of Mount Sinai Hospital, Cleveland; second vice-president, Miss Alice Thatcher, superintendent Christ Hospital, Cincinnati; third vice-president, Miss Mary Jamieson, superintendent Grant Hospital, Columbus; secretary and treasurer, Dr. E. R. Crew, superintendent of Miami Valley Hospital Dayton; executive committee, Dr. A. R. Warner, Mr. P. W. Behrens, Mr. F. E. Chapman, Miss Marie A. Lawson, Dr. A. C. Bachmeyer. The time and place of the next meeting were left to the executive committee.

After the banquet in the evening, the speeches were, as Dr. Warner said, inspirational rather than informational. Father Moulinier spoke on "The Hospital From the Point of View of the Patient," emphasizing the need for recognition of the spiritual side. Dr. Hornsby traced the influence on hospitals and health of the Crimean War, our own Civil War, the Russo-Japanese War, and the Great War just closed. This war has shown that the medical man is necessary in the army, not merely to take care of the sick, but also to keep the well man effective, and that the same things that have been done for the health of the men of the army ought to be done for the community at large.

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OKLAHOMA FORMS STATE HOSPITAL ASSOCIATION

Officers Elected and Constitution Drawn Up in Representative Meeting in Muskogee

A meeting for the purpose of perfecting a state organization of hospitals was held in the Hotel Severs, Muskogee, May 21. Dr. Fred S. Clinton, president of the Oklahoma Hospital, Tulsa, gave a luncheon at twelve o'clock, at which representatives from all the leading hospitals of the state were present, and a program was discussed which included the following topics:

The Object of the Meeting, Dr. Fred S. Clinton; What Is Hospital Standardization? Dr. F. K. Camp, Wesley Hospital, Oklahoma City; Minimum Requirements of Case Records, Dr. LeRoy Long, University Hospital, Oklahoma City; The Hospital as a Health Center, Dr. J. A. Hatchett, El Reno Sanitarium, El Reno; The Doctor's Part, Dr. V. Berry, Okmulgee Hospital, Okmulgee; The Hospital's Part, Dr. A. S. Risser, Blackwell Hospital, Blackwell; The Minimum Laboratory Requirements of a General Hospital, and its Equipment and Management, Dr. M. Smith, St. Anthony's Hospital, Oklahoma City; Let's Go, Dr. Sessler Hoss, M. V. R. R. and P. & S. Hospital, Muskogee.

After a short discussion of these topics, the organization was formed and the following officers elected:

President, Dr. Fred S. Clinton; first vice-president, Dr. J. A. Hatchett; second vice-president, Dr. A. J. Risser; executive secretary, Mr. Paul H. Fessler, superintendent University Hospital, Oklahoma City; treasurer, Dr. Sessler Hoss; delegate to the American Hospital Association, Mr. Paul H. Fesler; alternate delegate, Dr. F. K. Camp.

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INTER-ALLIED RED CROSS CONFERENCE AT CANNES

Public Health and Sanitation To Be Future Work of Red Cross—Congress To Meet Thirty Days After Peace is Signed

Fifteen of America's leading health specialists, acting with the distinguished physicians and scientists of England, France, Japan, and Italy, have affixed their names to a resolution of great import to the future welfare of mankind just adopted by the Inter-Allied Red Cross Conference in session at Cannes, France. The resolution was adopted by the committee of Red Cross leaders which is preparing the program to be submitted to the congress of Red Cross societies at Geneva thirty days after peace has been declared. The text resolution recommends a Red Cross program in the following words:

"We have carefully considered the general purposes of the committee of Red Cross societies whereby it is proposed to utilize a central organization which shall stimulate and coordinate the voluntary efforts of the peoples of the world through their respective Red Cross societies; which shall assist in promoting the development of sound measures for public health and sanitation, the welfare of children and mothers, the education and training of nurses, the control of tuberculosis, venereal diseases, malaria, and other infectious and preventable diseases, and which shall endeavor to spread the light of science and the warmth of human sympathy into every corner of the world, and shall invoke in behalf of the broadest humanity not alone the results of science but the daily efforts of men and women of every country, every religion and every race.

"We believe that the plans now being developed should at the earliest practical moment be put into effect and placed at the disposal of the world. In no way can this be done so effectively as through the agency of the Red Cross, hitherto largely representing a movement for ameliorating the conditions of war but now surrounded by a new sentiment and the wide support and confidence of the peoples of the world and equipping it to promote effective measures for human betterment under conditions of peace."

The following are the American scientists who have subscribed their names to the resolution: Dr. William Welch, Dr. William Palmer Lucas, Lieut.-Col. William F. Snow, Dr. Hugh S. Cumming, Dr. Samuel McClintock Hamill, Dr. Herman Michael Biggs, Dr. Fritz B. Talbot, Colonel Richard P. Strong, Dr. L. Emmett Holt, Dr. Wycliffe Rose, Dr. Frederick F. Russell, Dr. Edward R. Baldwin, Dr. Livingston Farrand, Lieut.-Col. Linsley R. Williams, and Dr. Albert H. Garvin.

BRITISH COLUMBIA HOSPITAL ASSOCIATION CONVENTION

Active and Growing Organization of the West Looks Forward to Big Meeting in July—Important Questions on the Hospital Policy of British Columbia to Be Considered

This convention, according to the president of the association, promises to be the best ever in that part of the country. It will take place in Victoria, B. C., July 8, 9, and 10. Many vital questions will come up and the entire hospital policy of British Columbia may possibly be altered or materially affected by the papers which will be given at this meeting and the discussions which will follow. A large commercial exhibit is planned. The program, as tentatively arranged, is as follows:

The opening session will include an opening address by the Lieutenant-Governor-in-Council; addresses of welcome by prominent men of the province; and an address by Dr. M. T. MacEachern, president of the association.

The afternoon session will consist of an address on "Infectious Hospitals for our Province," by Dr. H. E. Young, secretary of the provincial board of health, and discussion by the medical health officers of Vancouver, Victoria, and New Westminster. The following sessions will take up "Provincial Public Health Service," (address by Dr. R. H. Mullin, director of laboratories, Vancouver General Hospital, and Dr. H. E. Young, secretary of the provincial board of health); "The Standardization of Training Schools for Nurses in British Columbia," (address by Miss Helen Randall, president of the B. C. Nurses' Association and editor of the *Canadian Nurse*, and Miss J. F. MacKenzie, superintendent of Nurses' Provincial Jubilee Hospital, Victoria); "A New Basis for Financing Hospitals in British Columbia," (address by Mr. J. J. Banfield, member of the board of directors of Vancouver General Hospital, and Mr. R. S. Day, member of the board of directors of the Provincial Royal Jubilee Hospital); and "Case Records in British Columbia Hospitals," (address by Dr. T. R. Ponton, director of medical records, Vancouver General Hospital).

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INDUSTRIAL PHYSICIANS AND SURGEONS MEET

Program at Atlantic City, June 9, Includes Long List of Papers by Men Experienced in This Field

The meeting of the American Association of Industrial Physicians and Surgeons will be held at the Breakers Hotel, Atlantic City, June 9. According to its program this one-day meeting will be crammed with material of interest. The morning session is to be devoted to business matters and the president's address on New Developments in Industrial Medicine and Surgery.

At the afternoon session the following papers will be read, followed by discussion:

"Syphilis—An Instimable Factor in Industrial Inefficiency," by Capt. E. A. Oliver, M.C., U.S.A., formerly physician to Sears, Roebuck & Co.; "Is War-Time Surgery Applicable to Industrial Surgery"? by John Moorhead, M.D., Surgeon of Interboro Rapid Transit Company of New York; "Strain of Back—An Accident or Disease," by Lieut.-Col. R. B. Osgood, M.C., U.S.A.; "Conservation of the Vision of the Industrial Worker," by W. W. Blair, M.D.; "National Program for Industrial Hygiene and Medicine," by Col. A. J. Lanza, U. S. Public Health Service; "The Importance of the Diagnostic Clinic to the Industrial Physician," by Alfred Stengel, M.D., professor of medicine at the University of Pennsylvania.

HOSPITAL STANDARDIZATION SUBJECT OF CONFERENCE

Catholic Hospital Association of the United States and Canada Meets in Chicago—Make Your Reservations Early

The fourth annual convention of the Catholic Hospital Association of the United States and Canada will be held June 25, 26, and 27, in the hall of St. Francis Xavier's Academy, 4928 Cottage Grove Avenue, Chicago. The main subject of this meeting will be the work which has thus far been accomplished in the standardization of hospitals.

Besides this there will be papers and discussions dealing with the questions and difficulties concerning which a questionnaire was sent out by the association. Conferences of the heads of the various departments of the hospital will be conducted, and this beneficial work will be organized so as to assure the best results. Because of recent events that have taken place in regard to hospital standardization, this convention promises to be the most important one in the history of the association. The executive board requests all sisters who are unable to arrange for board and lodging at the convention to write to Reverend P. J. Mahan, S.J., 706 South Lincoln Street, Chicago, for such accommodations. Father Mahan is chairman of the committee appointed for this purpose. Applications for board and lodging should be made on or before June 10.

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NATIONAL LEAGUE OF NURSING EDUCATION MEETS IN CHICAGO

War Work for Nurses, Shorter Hours for Nurses, Teaching in Training Schools to Be Discussed

The National League of Nursing Education will hold their annual meeting from June 24 to June 28, 1919, inclusive, in Congress Hotel, Chicago.

June 24 has been set aside for executive and committee meetings, including a special meeting of the advisory council which is made up of the board of directors of the National League of Nursing and the presidents of all state leagues. The regular business meetings will begin on Wednesday, June 25, and will include reports of committees of the league and discussions of ways and means for carrying on the work of nursing education. At 8 p. m. the first public meeting will be held, the topic for discussion being "The War Service of Nurses." Addresses will be given by the superintendent of the Army Nurse Corps, the superintendent of the Navy Nurse Corps, the dean of the Army School of Nursing, the director of the nursing bureau of the American Red Cross, and a representative of the Civil Hospital Training School.

On June 26, a session will be devoted to "What the War Has Taught Us About Nursing and Nursing Education." It is expected that several returned nurses from overseas duty will tell about their experiences. Other addresses will be given on "The Work in Camp Hospitals," "Recruiting for the Student Nurse Reserve," and "The New Bureau of Information Concerning Nurses and Nursing Work," now conducted in New York City.

A session will be devoted to the study of the means for preparing a larger number of well-trained public health nurses, and a public meeting will be held on education at which prominent representatives from the department of general education, of public health and of nursing education will speak.

At two sessions devoted to the question of improving teaching in training schools reports of experiments along special lines will be given by experts who have made the investigations. These sessions will be followed by round tables for both training school superintendents and instructors.

A special evening session will be devoted to the study of hours of work, at which the relation of hours of work to health and efficiency, and the need for shorter hours in nursing schools will be the main topics.

At the closing session a summary of the work done during the convention will be made and the program of policies for the coming year will be considered.

During the convention time will be arranged for special groups of workers to convene for discussion of topics relative to their work.

As suggested by the joint board of directors of the three national organizations, a meeting of the state boards of nurse examiners will be called in special session to discuss problems of legislation and other matters relative to their work.

The chairman of the arrangements committee is Miss Bena Henderson, Children's Memorial Hospital, Chicago.

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NURSING EDUCATION IN CANADA

Canadian Association of Nursing Education Holds Annual Meeting in Vancouver—Special Attention Paid to Question of Securing Suitable Applicants for Nursing

The annual meeting of the Canadian Association of Nursing Education will be held in Vancouver June 30, and July 1-2. Among the subjects fixed for discussion will be the eight-hour day for student nurses in training schools, a minimum standard curriculum, how the association can be of real help in assisting the schools which experience a shortage of suitable applicants, and the final report on affiliations of general hospitals with neighboring sanatoriums for the purpose of providing experience in the modern care and treatment of the tuberculous.

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MICHIGAN NURSES MEET

State Association Considers Important Questions of the Day—Rural Nursing, Industrial Nursing, and the Length of Training School Courses Among the Most Important

The annual meeting of the Michigan State Nurses' Association was held in Battle Creek April 28, 29, and 30, 1919. The first day was devoted to the business session and an informal reception at the Sanitarium Chapel by the Sanitarium Nurses' Alumnae Association; the first evening to a series of lectures on reconstruction and an illustrated lecture.

The day of April 29 was given up to the round-table discussions. These were given under the headings, public health nursing, tuberculosis nursing, rural nursing, industrial nursing, general visiting nursing, infant welfare, school nursing, Red Cross public health nursing, training of nurses' aids, the length of time spent in the training schools, and the personality of the public health nurse. The discussion of rural nursing included consideration of infant welfare work in rural communities, the problems presented by rural school children, mothers' meetings in rural communities, tuberculosis as found in the rural school, and the problems of the county school nurse. Under tuberculosis nursing were considered the nurse's responsibility to the patient and his family, to the com-

munity, to herself, and to the organization which employed her. These are, of course, only a few of the topics which were considered.

The last day, April 30, was given to the conclusion of unfinished business.

The officers elected at this convention were as follows: President, Mrs. H. Beach Morse, Bay City; first vice-president, Miss Elizabeth Parker, East Lansing; second vice-president, Miss Minnie Paynter, Calumet; recording secretary, Miss Leone Sweet, Battle Creek; corresponding secretary, Miss Anna M. Schill, Detroit; treasurer, Miss Lulu B. Durkee, Detroit; councillors, Miss Lystra E. Gretter, Detroit, and Miss Ida M. Barrett, Grand Rapids.

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INSTITUTION ADMINISTRATION

Round-Table Discussion at Teachers College, April 4 and 5—Special Types of Administrative Work

A round table on institution administration, arranged by Miss Emma Gunther, at Teachers College, Columbia University, New York, April 4 and 5, a large number of people interested in different phases of administrative work in institutions in the East. The varied types of work represented by those in attendance was a revelation to many interested in this field of home economics. It was not the usual formal conference; instead short reports were presented, as shown on the program given below. All the meetings were marked by a very keen interest and enthusiasm. A most helpful and interesting feature of the round table was the opportunity which it afforded for the meeting of workers in the various fields and for the exchange of experience.

A number of colleges, offering courses in institution management, were represented. These included Pratt Institute, Simmons College, Cornell University, University of Wisconsin, Battle Creek, and the University of Chicago. Many colleges are responding to the demand for training in institution management, and are asking for instructors and organizers of such departments.

At the opening meeting, Dr. Bigelow extended a cordial welcome on behalf of Teachers College. In the evening, Professor Nutting brought a message of inspiration to all workers, pointing out that the activities in these institutions lay at the very root of human needs and that all should appreciate and understand the big essential things for which this work was created.

The meeting of Friday afternoon under Miss Helen Hollister of Pratt Institute, Brooklyn, as chairman, was devoted to fifteen-minute talks on special types of administrative work, including the following subjects: "Cafeteria Management and Welfare Work for Employees," by Mrs. Marion Shafer, National Bank of Commerce, New York City; "What the Management of a Woman's Club Involves," by Miss Ayer, New Century Club, Philadelphia, and Miss Mildred Barber, Woman's City Club, Boston; "Developments in School Lunch Work," by Miss Daisy Treen, director of high school lunches, Boston; "A Community Club," by Miss Cornelia Marshall, president of Girls' Community Club House, New York City; "Problems of Y. W. C. A. Cafeterias," by Miss Emma Schooley, Y. W. C. A., New York City, and Miss Penrose, Y. W. C. A., New York City; "New Developments in My Work as a Hospital Dietitian," by Miss Charlotte Addison, Post-Graduate Hospital, New York City; "A Problem in Accounting," by Miss Delia Johnson, instructor in institution accounts, Teachers College; "Business of a Tea Room," by Miss I. Freese, Colonial Tea Room, New York City; "Administration of a Food Shop," by Miss Ella Emerson, Food Shop, Woman's Educational and Industrial Union, Boston; "Dormitory Management," by Miss Tyler, Brooks Hall, Barnard College, New York City; and "A Field for Special Dietitians," by Miss Lulu Graves, president of American Dietetic Association, Cornell University, Ithaca.

Two-minute reports were given by graduates of the institution administration departments of Pratt Institute, Drexel Institute, Simmons College, Y. W. C. A., and Teachers College.

On Friday evening under Miss Elizabeth Goodrich, of Simmons College, Boston, as chairman, twenty-minute talks were given on new phases of institution work, which included the following subjects: "My Work as an Advisor in Cafeteria Organization," by Miss Elizabeth Bohn, New York City; "The Work of a Consultant for Households and Institutions," by Mrs. Alice Dresser, household consultant, Boston; "Supervisory Work for a Dietitian," by Miss Lenna Cooper, supervising dietitian, Surgeon General's Office, Washington, D. C.; "Organizing Our Work in a Large Lunch Room," by Mrs. Melinda Manchester, Filene's Store, Boston; "Time and Motion Studies" (Lecture and Lantern Slides), by Mrs. Frank Gilbreth, author of "Scientific Management," Providence, R. I., and "The Use of Score Cards in Administrative Work," by Mrs. Annie Dewey, Lake Placid Club, New York, and Miss Ann Blitz, dean of William Smith College, Geneva, N. Y.

On Saturday morning a group conference met for discussion of special topics. There were presented new types of positions for institution directors, especially those of organizing departments for the teaching of institution management.

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PROGRAM ON INSTITUTIONAL ECONOMY

Institutional Economic Section of the American Home Economic Association Meets This Year in Madison

The institution economic section of the American Home Association is devoted to the administration of the institution and the household and to education in institutional economy. The annual meetings have, with few exceptions, been held at the Lake Placid Club, Essex County, New York. War Conditions necessitated the abandonment of separate section meetings during 1916, 1917, and 1918. It has seemed advisable to hold the 1919 meeting in the Middle West. It will be held in Madison, Wis., June 9-13.

These are some of the subjects to be brought up for consideration by paper and discussion: courses of study for institutional economics (two days will be devoted to the subject); dormitory administration with emphasis on all phases of the work; cafeteria management in both the college and commercial worlds; school lunch problems; restaurant and coffee shop management; hospital administration; and new phases of institution work, such as supervising-housekeepers in wealthy homes, camp directors, etc.

The program will be conducted by administrators and teachers in colleges and schools, by dietitians, and by others actively engaged in the business world.

Space devoted to institution economics on the general program at Blue Ridge, N. C., June 23-29, will be used.

It is expected that there will be some worth-while exhibits of institutional furnishings and equipment. For complete program and particulars as to accommodations, address Miss Elsie P. Leonard, Chairman Chadbourne Hall, Madison, Wis.

DEPARTMENT OF NURSING

Conducted by ANNIE W. GOODRICH, Dean Army School of Nursing and CAROLYN E. GRAY, R.N.

Please address items of news and inquiries regarding Department of Nursing to CAROLYN E. GRAY, R.N., Secretary of the New York Board of Nurse Examiners, 135 E. 45th St., New York City.

POSSIBILITIES OF STANDARDIZATION IN NURSING TECHNIQUE*

Necessity for Greater Uniformity Among the Training Schools—Dangers of Too Great Standardization—Eight Principles Upon Which Standards May Be Based

By ISABEL M. STEWART, R.N., M.A., Assistant Professor Department of Nursing and Health, Teachers College, Columbia University, New York City

The boards of nurse examiners tell us that among the applicants coming up for their R.N. examinations in practical nursing, one will usually find that there are about as many methods of making a bed as there are schools represented. This wide variation in methods extends to practically all our nursing procedures. There might be little objection to differences in method if all methods were equally good, but among examiners and others who have had an opportunity of observing the work of nurses from many different schools, the general feeling seems to be that a good deal of our nursing practice is pretty slack and our methods very often open to question. The difficulty is that we have very little basis of judgment as to what is good or bad technique. With most of us the tradition of our school or our section of the country seems to be the determining factor, while others depend upon a nursing textbook or some prominent school as a final authority. The question is whether we can arrive at any better method of determining nursing standards and whether we can do anything more than we have been doing to improve methods of nursing in the country generally.

A standard is something which has been agreed upon as a model or type, something which can be generally accepted as a basis of comparison or unit of reference. The old way of arriving at a standard was through the process of trial and error. Once the standard was accepted, there was very little chance of its changing much so long as it worked tolerably well. A rather new conception of standardization has come into use recently. Under the system of scientific management, a standard represents something which has been arrived at through exhaustive inquiry, minute tests, and accurate measurements. In determining the relative efficiency of a number of different methods, the decision would be based, not on the *opinion* of even the most expert, or on a majority vote, but *on the results of actual scientific investigations*, so far as these could be applied.

There has been a great deal of scepticism among practical people regarding the value of all these new efficiency methods—indeed the very word "efficiency" has become distasteful to many of us because we have been so appalled by the results which have been brought upon the world by the much-boasted system of German military efficiency. The war has compelled us, however, to accept a great many of the principles and methods of the efficiency experts, and this idea of standardization has pushed ahead very rapidly in the last few years. Everything has been standardized, from ships and aeroplanes to guns and gas masks. The tests have been endless and exhaustive —tests of materials and of men, psychological and physiological tests, mathematical and scientific tests. Volumes of records have been kept, and, on the basis of these, new standards have constantly been developed to replace the old. The method has been applied not only in the field of warfare and of industry, but in government, in relief work, and even in the field of education.

The general principle of standardization is not new in hospital and nursing work. In fact, we long ago accepted the idea of standardized equipment and methods of ward procedure. The question is whether we are ready to go farther in applying the scientific or experimental method of arriving at our standards, and whether we wish to recommend that these standards will be more rigorously and systematically applied than they have been in the past. Before deciding this question we ought to consider very carefully what it would mean. In the first place, we should have to submit all our existing methods to the most careful analysis by skilled experts, whom we should probably have to train and develop especially for this work. It would mean extensive clinical observations and tests, records of costs and materials, of time studies and motion studies, tests of fatigue in workers and of therapeutic results in patients.

But can we actually measure these things, can we determine absolutely the relative value of different nursing methods? We all know that skilled nursing saves lives, that it hastens recovery, shortens the period of convalescence, reduces complications, promotes the happiness and comfort of the patient, and establishes health on a better basis. Mortality statistics would undoubtedly tell us something about the standards of nursing in different hospitals or nursing associations; medical examination and case records would tell us something, and the testimony of patients and their friends might be well worth considering; but it is perfectly evident that, while it is easy enough to measure and record ordinary manipulations and materials, there are a great many results of nursing methods which could not be tested or measured in any very accurate way. This is no reason, however, why we should not go as far as we can, and certainly, if research and investigation are considered absolutely essential to the progress of medical science and every other branch of modern educational or scientific work, we cannot afford to neglect it as we have been doing in nursing.

What result might we hope to achieve through a more careful scientific study of our methods? In the first place we should undoubtedly eliminate some of our loose, hit-or-miss, antiquated methods of work. A great many useless elaborations would be cut out, and we would save a good deal in time, in energy, and in materials. In many technical processes, time and costs have been reduced from one-half to one-tenth of the average through careful tests and experiments. We can readily see what this would mean in a hospital where time is always at a premium and where the resources are never equal to the expenditures.

Certain other advantages are evident. A method which has been tried out according to scientific standards, would be more likely to command the confidence of nurses and

*Read before the Annual Convention of the New York State League for Nursing Education, Rochester, N. Y., December, 1918.

hospitals generally, and this would lead to greater uniformity in technique throughout the country. In hospitals where every different doctor wants his own special method carried out, it would offer a sounder basis for decisive action than simply the majority vote of the members of the staff. In hospitals or organizations where the graduates of a great many different schools are working, each clinging loyally to the traditions and methods of her own school, it would be easier to find a basis of agreement if authoritative data could be submitted in support of one common method. It would give teachers of nursing greater confidence and their teaching would carry greater weight if they could always support their statements with evidence and not merely with opinions. I think that we would all agree that there are undoubted advantages to be gained from this kind of careful analysis and study of nursing methods and that we ought to proceed as rapidly as we can to provide for some research along these lines.

But when it comes to the question of applying these standards a good many difficulties arise. Among efficiency experts it is definitely assumed that once a standard has been decided upon, it will be adopted by every worker and followed exactly, or with the very slightest variations, until a new or better method has been discovered. Where one has material things only to consider and where the work is of a routine type, it is perfectly possible to establish fixed and definite methods of procedure, and it is quite certain that such a system does increase production and does effect a saving in time, energy, and costs. But in nursing there are very few procedures that can be carried out in any routine way. We are dealing there mainly with human beings who vary in every conceivable respect—in size, in weight, in age, in sex, in temperament, in intelligence, and in many other ways. Not only have we widely varying individuals to consider, but they are all suffering from different ailments. No two diseases can be treated in the same way, and even in the same disease no two patients present exactly the same problems. If we are going to assume that the same method will be used with all patients in all conditions, and carried out in precisely the same way, we would reject the whole idea of standardization at once, because we know that this kind of stereotyped routine is always fatal to good nursing. Certain procedures like bed-making and dusting will always tend to become more or less automatic, but even an ordinary cleansing bath cannot be given in precisely the same way to every patient. The disease, the acuteness of the condition, the age, and even the preferences or whims of patients have to be considered, if need be at the sacrifice of the usually accepted standards of efficiency. It would be quite impossible to provide for all these variations by working out different methods for each, and so we have to accept it as a general principle that every method is to be adjusted to meet the needs of each case, and that this adjustment must be left to the judgment of the doctor or the individual nurse.

Although most of the ordinary nursing situations to be met in cases of illness can be foreseen and provided for, there are always unexpected situations appearing which present unusual complications and problems. It would be practically impossible to provide a standardized solution for all of them. We have to depend on the intelligence and resourcefulness of the nurse to apply the principles which she has been taught, and if she has been accustomed only to following a well-worked-out formula which some one else has provided for her, she will be lost entirely when she faces such problems as these. Practically none of the situations which nurses have to meet can be solved by manual dexterity alone or by any machinery which can be automatically set in motion. Many of them are psychological situations which have to be sized up with unusual insight and sagacity and which have to be handled with tact and discrimination. No one can standardize such procedures. They must be left to the wit and ingenuity and sympathy of the individual nurse, and she must be able to work the thing out for herself in so far as her responsibility extends.

Moreover, while our equipment and other resources in hospital work are usually uniform and allow us to follow a more closely standardized method of procedure, we know that these conditions do not exist as a rule outside the hospital. The nurse who is going to do her work in private homes, the Red Cross nurse who must be ready for service in times of war or national calamity, the public health nurse, the pioneer nurse, or the missionary nurse will not find her equipment ready at hand as it is in the hospital. She will often have to work with practically nothing at all and she will be expected to improvise her own equipment and work out her own method.

The question is whether we can develop this kind of resourcefulness and initiative if we insist on too great uniformity of technique during the long period of training. It is a familiar criticism of the graduates of even our best training schools, that they cannot adapt themselves readily to the conditions they find outside the hospital. No matter how perfect their work may be in the demonstration room or in the hospital ward, we could not call them well-trained or efficient nurses if they could work only under familiar conditions, with all their equipment and materials ready at hand.

There is another element which has not been sufficiently considered by the advocates of rigid uniformity, and that is the objection which many human beings have to any kind of unvarying routine. Few of us could be happy in our work if it were all cut and dried. We want to put a little of our own individuality into it, to be able to try our different ways of getting the same results, if the essential success of the procedure is not going to be endangered by our experimentation. We cannot help distrusting any system which tends to make the individual simply a cog in a huge machine. It is too much like the German type of efficiency which is said to work with absolute uniformity, with unvarying regularity, with great thoroughness and mechanical expertness, but which leaves out of consideration most of the things, human and social, which make life worth living.

There are a great many definitions of "efficiency" but it seems to me that it just means getting things done in the best possible way with the least possible expenditure of time, energy, and materials and with the greatest satisfaction to all concerned. Friction and fretting and unhappiness may cause a far greater loss of energy than a few extra physical motions. Where there is no sense of freedom, no room for self-expression in one's work, no opportunity for individual responsibility and initiative, there can be very little real joy or satisfaction. If this nation feels that it is worth while to spend millions of dollars to help in keeping up the morale of its fighting and working forces, to make them happy and satisfied, and to give them confidence and courage, may we not assume that these things are worth some consideration in every branch of the nation's work. In nursing it seems to me that it is doubly important because happiness not only makes for better work, but it is a therapeutic agent of high value, and being contagious it spreads very rapidly from nurse to patient. The conditions of nursing work

must therefore be such as to allow for the free expression of individuality, so far as possible.

The conclusion seems to be then, that while we need to study our methods much more carefully and need to work out our procedures on a scientific basis so far as possible, we do not want to insist on any rigid adherence to set forms of technique. So long as certain fundamental principles are observed, it would be an advantage rather to have at command a variety of methods, and it would always be important that we should keep our procedures flexible and should be able to adjust them readily to suit varying needs and conditions. Our standards would be used not as rules to be invariably followed but as guiding principles or standards of reference.

The chief thing is that we should all have some basis of judgment which will enable us to size up any method as good or bad, more efficient or less efficient, and that we should have principles which would guide us in establishing new methods, where the old will not work. I am going to suggest eight standards by which we may judge the value of any nursing method. Even without accurate measurements, it is still possible to reach a fairly just decision, especially if we get a number of people to evaluate the different points under discussion.

I think I should always put *safety* as the first standard, because, no matter how effective a method might be in other respects, if it involves serious risks of fire, or infection, or injury of any kind to the patient or those about him, it would be less desirable than other methods which would not involve these dangers. Sometimes such risks must be taken but not in ordinary cases.

The next standard for judging the value of any nursing method is that of *therapeutic effect*. Does the measure produce the desired results—the best results in the average case? The result desired may be reduction in temperature, or the relief of pain, or a hundred other things, some of which as I have said before, it is very difficult to measure accurately, but all of which are of primary importance.

Next comes the *comfort and general happiness of the patient*. Of two methods giving equally good therapeutic results, we should always choose the one which produces least pain, discomfort, embarrassment, or worry to the patient. Indeed, it may be that a less effective measure may in the end give better results because it causes less physical or mental discomfort.

Probably the next thing to consider is *economy of time*. In some cases, as in the operating room or emergency work, speed may be a factor of primary importance. It is always important from the standpoint of the hospital, but may be unduly emphasized in the carrying out of ordinary nursing measures. When it interferes with thoroughness or with proper consideration for the comfort and welfare of the patient, it may be a danger or handicap rather than asset.

Economy of energy or effort applies particularly to those procedures involving heavy lifting, continuous movement, or strain of any kind. Anything which makes a heavy drain on the nurse's vitality or endurance should be eliminated as far as possible, not only for the sake of the nurse herself, but because it is not possible to secure such a high percentage of efficiency under such conditions. Labor-saving devices should be used to the fullest extent, providing always that they do not interfere with the effectiveness of the treatment or the comfort of the patient.

Economy of materials and costs would be the next consideration as a rule. Other things being equal, the method which involves the least expensive materials and equipment would be the one preferred. Sometimes a method which involves a greater initial outlay may be the cheaper when carried over a long period of time. Durability is something which must be considered here as well as in connection with the expenditure of time and effort. In business or industry the question of cost may be of primary importance, but where life or health or even the comfort of a patient are to be considered, we usually feel that it can not be allowed to take on undue importance.

Finished workmanship is an important consideration in judging nursing technique. Neatness and attractiveness of appearance, what is often called "artistic finish," is something we very much like to see, but not at the expense of more essential things. The artistic touch is shown not only in the appearance of the finished work, but in the little niceties of detail, in the deftness and dexterity with which the whole procedure is carried through, and in the evident pride which the worker takes in her art.

The final standard would be *simplicity* in technique. A method which is highly complicated and detailed or one which is limited in its application because of difficulties in its execution, would not usually recommend itself as practical or efficient. There is a tendency to over-elaboration of much of our technique, which is in itself a danger, even while its aim is often increased protection to the patient. Any procedure which becomes too involved and elaborate, is likely to be slipped over in the rush of a busy ward and sometimes essentials may be overlooked among non-essentials. As far as possible the materials and equipment used should be of a type easily obtained in homes as well as institutions, so that there would be little difficulty in adapting the standard hospital method to home conditions.

These standards are not all of equal value and not all of them have to be considered in every kind of nursing procedure. In practically every case, however, our heaviest values would have to be placed on the first three points —those which concern the safety, health, and comfort of the patient. Next in importance, as a rule, will be the saving of the nurse's time and strength and the protection of her health. The hospital must be considered especially in relation to the question of costs and in regard to convenience and smoothness of operation of the work as a whole. Sometimes these different interests will conflict and then it is always necessary to balance and harmonize them in order that so far as possible justice may be done to all and the purposes for which the hospital exists may be carried out as effectively as possible.

There is always some danger that we may lay too much emphasis on the purely mechanical side of any nursing operation and that we may allow ourselves to be influenced too much by simple manual dexterity, or speed or finish, and not look farther to the principles which are being carried out, and their effect on the patient. We all know that "beautiful" work is not always good work, and the nurse who has developed a high degree of manual skill only, may lack these other qualities of intelligence, resourcefulness, and initiative which we all agree are more essential to really successful nursing. After all, trained brains are more important than trained muscles, though both kinds of skill are, of course, required in a high degree in our work.

It seems to me that pupil nurses from the very beginning should be encouraged to measure their own work by some such standards as these. It would give them some ideal to work toward and would enable them to appraise their own efforts and to work definitely toward improvement. They will often be able to suggest modifications in existing methods which make for improvement,

and I believe that all such contributions should be encouraged and recognized. Physicians can give us a great deal of help in this way and patients too, if we would accept their suggestions.

Once we have worked out what we believe is a satisfactory method and submitted it to all the tests which we can set, the next thing is to put it in writing in the clearest and most concise and convenient form for constant reference. This is what the efficiency people call an instruction or plan card. There are many different types of card, but for all ordinary nursing procedure the points covered would be, first, the thing to be done and the results to be obtained; second, the materials and equipment to be used, grouped together in the most convenient way; and third, the steps to be taken in the exact order in which they are to be carried out. Sometimes drawings or photographs are used to make the directions clearer, and very often the time is given for each step in the standard operation. Copies of these cards should be found in every ward and, if possible, every student should have a multigraphed copy for her notebook. There is no reason why there should not be two or three methods outlined for the same procedure, if they are all satisfactory methods. If it is decided at any time to make a change in the method, old plan cards would be withdrawn and new ones substituted. In some hospitals this method has been followed for some years. Two or three hospitals have recently published their procedures in book form, and there seems to be no reason why this should not be done by any school, so long as provision is made for frequent revision and correction. The main difficulty is that methods may become fixed, whereas the great object is to keep them *flexible* and up to date with the constant progress in medical science and with our own advancing knowledge.

A free exchange of the standards worked out by different schools would undoubtedly have good results. It would at least arouse discussion and would compel us to look into our own methods more deeply to find justification for them. It would be hoped that gradually some agreement might be reached among different schools regarding the more essential points, and particularly the procedures usually taught in the preparatory period. If we are going ahead, as we probably will, with the nursing preparatory courses in colleges, we will have to agree upon some system of preparatory instruction which will meet the requirements of the different schools to which the students go, or we will have to eliminate practical nursing from the program of the students altogether.

Last summer in Vassar College the teachers of nursing represented seven or eight different schools, and the students were preparing to enter thirty or more different schools. The only thing that could be done was for the teachers to meet and agree upon certain general methods which seemed to them to measure up to the standards which we have discussed here. I understand that in some cases the students had to change practically every method they had learned when they came into the hospital. This is surely not a very satisfactory or economical way of teaching practical nursing. I have no objection whatever to pupil nurses learning a number of methods of making a bed or giving a bath, but where, as in some cases, the principles conflict, it tends to produce questioning and confusion in the minds of the students, and I think it does lead to a lack of confidence in our system as a whole.

Some day soon we must work out a plan for our own experimental laboratories, where we can carry on our research work as they are doing in practically every other field of technical or scientific work. If it can be done in connection with industrial work, and in schools and colleges, and scientific institutions of every sort, surely it can be done in hospitals where we are already carrying on extensive research work in medicine. Not only would the patients benefit by it, but the whole institution would profit by a careful scientific study of nursing work. And last, but not least, we might find some way of lightening the heavy burdens under which our pupil nurses are laboring—which is, after all, the biggest problem of the moment in nursing work.

* * * *

RED CROSS NURSE DECORATED

Exceptional Heroism in Action Brings Honor Again to American Red Cross

The decoration of another American Red Cross nurse for exceptional heroism in action has been reported to national headquarters from Paris. She is Miss Jane Jeffery, of Brookline, Mass., who was awarded the Distinguished Service Cross in recognition of her courageous conduct during the German air raid on the American Red Cross hospital at Jouy-sur-Molin last July. At that time Miss Jeffery although badly wounded herself attempted to continue her duties. Her citation reads:

"For extraordinary heroism in action at Jouy-sur-Molin (Seine-et-Marne), France, on July 15, 1918. While she was on duty at American Red Cross hospital No. 107, Miss Jeffery was severely wounded by an exploding bomb during an air raid. She showed utter disregard for her own safety by refusing to leave her post, though suffering great pain from her wounds. Her courageous attitude and devotion to the task of helping others was inspiring to all her associates."

Miss Jeffery has served in France since October, 1917, and until June last was stationed at the Red Cross repatriation depot at Evian. Then, during the Marne battle, she was transferred at her own request to Jouy.

* * * *

STANDARD RATES FOR CALIFORNIA NURSES

State Nurses' Association Adopts Salary Schedule Based on Reasonable Charges Under Present Conditions

As a result of numerous complaints that nurses in the state of California were charging exorbitant prices for their services, the State Nurses' Association has adopted the following schedule as being reasonable, under existing conditions, for trained nurses:

General nursing (men, women, and children), for less than one week, a fraction of a day or odd days over a week: $5 a day, or $30 a week.

Contagious and infectious cases specified as scarlet fever, diphtheria, measles, erysipelas, tuberculosis, venereal and malignant diseases, and typhoid: $5 a day.

Typhus, bubonic plague, smallpox: $10 a day; mental cases, $6 a day; alcoholic cases, $10 a day; assistant at operations, $5 to $10; obstetrical nursing, $5 a day, $30 a week while waiting.

Additional patients, each, $10 a week, or $2 a day; visiting nurses, $2 an hour or less, during the day; visiting nurses, after 6:00 p. m., $3 an hour; special treatments, including massage, nurse to make her own rate.

Traveling expenses charged on all out-of-town cases.

* * * *

Montana has issued a call for more public nurses. In connection with Surgeon-General Blue's recent statement that there should be a public health service nurse at work in each county, statistics indicate that Montana lacks sufficient nurses to supply even one-third of its counties.

HEALTH AND MODERN INDUSTRY

Conducted by BARROW B. LYONS
Superintendent Delaware Hospital, Wilmington, Del.

TWENTY SUGGESTIONS TO INDUSTRIAL PHYSICIANS AND SURGEONS

Their Field Includes Vocational Placement and Health Supervision, Both of Men and Conditions at Work and Home—Big Feature to Be Reached Through Work and Research

By C. D. SELBY, M.D., Consulting Hygienist, U.S.P.H.S., Washington

The function of industrial hygiene and medicine is to reduce or prevent, so far as possible, the loss of time and efficiency among industrial workers from conditions that impair the functioning of the human body in its relation to work.

In seeking to gain these ends, it is necessary that industrial physicians (1) assist and advise in the selection and vocational placement of workers; (2) aid workers in the maintenance of their health and body functions and in their restoration when impairment has occurred; (3) supervise working conditions so far as they may affect health; (4) under certain circumstances, give aid in the procurement of better home and community conditions; and (5) endeavor to enhance the knowledge of industrial hygiene and medicine.

Industrial physicians would do well not to allow the urgency of surgical care in industry to detract from the importance of thoughtful attention to the related hygienic functions of medical service.

VOCATIONAL PLACEMENT OF WORKERS

The measures necessary for physicians to assist and advise competently in the vocational placement and replacement of workers are indicated under the following headings:

Standardization of Occupation Requirements

At present the greatest difficulties industrial physicians have in this respect are: (1) the lack of standards as to maximum effort, average continued effort, and other conditions under which women, handicapped, and normal workers continue to labor effectively and without personal hazards; and (2) the lack of similar standards for machine operations, process work, and other occupational requirements. Investigations are being conducted to ascertain such standards but obviously a considerable time will be required for their completion.

Suggestion 1.—In the meantime it is suggested that industrial physicians familiarize themselves as thoroughly as possible with the physical and temperamental requirements of all operations, processes, and methods used in their establishments.

Physical Examination of Industrial Workers

The purpose of the physical examination is to obtain information which will enable physicians (a) to assist and advise in the vocational placement and replacement of workers and (b) subsequently to assist and advise both employers and workers in the maintenance of the workers' health; the former in order that they will not cause the workers to labor under conditions that may be unfavorable to health, and the latter in order that they may live and labor without impairment to health. Physical examinations of employees on various occasions are essential to this purpose.

Suggestion 2.—In view of the foregoing it is suggested that industrial workers be examined physically (a) prior to employment and reemployment if the period of absence warrants; (b) upon transfer; (c) upon termination of employment if engaged in process or other hazardous work; (d) after absence due to sickness or injury not under observation; (e) upon feeling or appearing sick; (f) upon failing to measure up to requirements of production, unless the reason is evidently not physical; (g) when engaged in process or other hazardous work (monthly or more frequently if necessary); (h) when handling food supplies (sufficiently often to guard against communicable disease); and (i) when pathological conditions have been found (sufficiently often to guard against further impairment).

Application of Standards

To examine only is not sufficient. The findings must be analyzed, and, through cooperation with employment departments and foremen, must be applied to vocational placement and subsequent physical supervision.

Suggestion 3.—It is suggested, therefore, that physicians foster a closer cooperation with employment departments and foremen in order that they may advise with and assist them in applying the information secured through examinations to the vocational placement and transfer of women, handicapped, and normal workers.

Instruction of Newly Placed and Transferred Workers

Sometimes instruction is necessary in order that workers may adapt themselves to their vocations and safeguard themselves against hazards that cannot be avoided. This applies, for example, to workers in lead, TNT, and other poisons, also to female and handicapped workers under certain conditions.

Suggestion 4.—That workers may safeguard themselves against health hazards unavoidably present in vocations to which they are assigned, it is suggested that physicians (a) familiarize themselves with the hazards of vocations, (b) prepare themselves personally to instruct employees when necessary, and (c) supply themselves with instructive pamphlets in hazardous vocations.

HYGIENIC SUPERVISION OF WORKING CONDITIONS

Because of their knowledge of the human body, the physicians may be reasonably expected, when they assume industrial service, to have knowledge of working conditions which have unfavorable effects upon health. They may be expected also, in their capacities as industrial physicians, to exercise supervision over working conditions in order that workers may not be unnecessarily subjected to unhealthy conditions. The measures necessary for the exercise of such supervision are discussed under the following headings:

Inspection

Obviously physicians can not supervise working conditions unless they have intimate knowledge of existing conditions in their establishments.

Suggestion 5.—In order that they may secure intimate knowledge of existing working conditions, it is suggested that industrial physicians, or their assistants, make regular tours of inspection of their establishments with the ob-

ject of obtaining information which will enable them to act intelligently in the correction of those conditions which are harmful to health, particularly with respect to (a) monotony, (b) concentration, (c) isolation, (d) speed, (e) overtime, (f) inadequate ventilation, (g) poor illumination, (h) excessive variations in temperature, (i) excessive variation in humidity, (j) harmful dusts, (k) gases, (l) fumes, (m) poisons, (n) inadequate sewage and waste disposal, (o) inadequate toilet, washing, and locker facilities, (p) unsafe drinking water, (q) workroom congestion, (r) poorly adapted workroom clothing, (s) unnecessary noises, (t) lack of mechanical safeguards if safety is not otherwise provided, and (u) workroom disorder.

Investigations

Certain processes, operations, and methods necessary to industry are known to be harmful to health; others are suspected of being harmful. While investigations have been made and conclusions have been reached in connection with certain of the health hazards, there are yet many opportunities for further investigations.

Suggestion 6.—For the enrichment of knowledge of health hazards of processes, operations, and methods, and the determination of means for preventing or minimizing those hazards which can not wholly be avoided, it is suggested that industrial physicians make special studies of such known and suspected hazards as may be present in their establishments. It is also suggested that those physicians who contemplate making studies of this nature communicate with the U. S. Public Health Service, the office of Industrial Hygiene and Medicine, in order that this office may avail itself of their findings and may inform them of the results of other similar investigations.

Instruction of Foremen and Management

While production is paramount in industry, no employers wish to jeopardize unnecessarily the health of workers. If working conditions are such that harmful effects do or may result, the assumption is that the employers are not aware of them nor informed of means for their correction; these matters are left very properly to physicians and sanitarians.

Suggestion 7.—In view of the fact that the thoughts of employers are applied chiefly to the problems of production, the initiative in the correction of unfavorable conditions must necessarily rest with the physicians. It is suggested, therefore, that industrial physicians take special pains to inform employers and foremen tactfully but clearly of (a) the existence of unhealthful conditions, (b) their harmful effects, and (c) means for their correction.

HEALTH MAINTENANCE

While it is true that unfavorable working conditions are capable of impairing the health of workers, those conditions are not alone responsible for impaired health. Much depends upon the workers themselves and the manner in which they live and sustain themselves. Although the workers are free agents and are privileged to live and sustain themselves as they see fit, physicians are able to assist them greatly through advice and service in the maintenance of health. As an aid to efficiency and production, employers realize the advantage of extending their workers assistance in this direction, particularly in so far as maintenance of health during hours of employment is concerned and, quite naturally, they look to their physicians to do this for them.

Health Instruction

Not being specially trained in health maintenance, the workers may be expected unknowingly to violate the rules of health.

Suggestion 8.—In order that industrial workers may not be handicapped by a lack of knowledge of the measures essential to health maintenance, it is suggested that industrial physicians endeavor through lectures, personal talks, bulletins, posters, articles in shop papers, etc., to instruct them in (a) personal hygiene, (b) proper clothing, (c) proper food, (d) recreation, (e) rest, (f) exercise, (g) prevention of transmissible diseases, (h) personal habits, etc.

Provisions and Facilities for Health Maintenance in Establishments

Instruction in the maintenance of health alone is not sufficient. Provisions must be made and facilities furnished within the establishments in order that workers may be induced and enabled to apply the principles of health maintenance during working hours. Although industrial physicians have manifested little interest in this direction, it is reasonable to believe that their knowledge is such as to qualify them to advise on, if not to supervise, all activities necessary to prevent fatigue and impairment of vitality.

Suggestion 9.—In applying their knowledge to the prevention of fatigue and the impairment of vitality among industrial workers, it is suggested that physicians direct their attentions to (a) the procurement and operation of facilities for rest, recreation, and exercise, (b) the designation of workers who should have the benefits of rest, recreation, and exercise, and (c) the conditions under which they should avail themselves of these benefits. It is further suggested that physicians interest themselves in the (d) procurement of refreshment facilities (restaurant and refreshment stations), (e) the supervision of food and milk supplies, (f) the sanitary supervision of restaurants, refreshment stations, kitchens, and storage rooms for foods, and (g) the daily inspection and monthly examination of all food handlers (for prevention of communicable diseases).

Prevention of Transmissible Disease

The necessity of preventing, or at least controlling, transmissible disease among industrial workers is evident. The difficulty is in applying the measures necessary. Theoretically it might appear that a daily inspection of all employees by physicians or their assistants would serve to bring all transmissible disease to attention in their incipiency. However, in many establishments this is impractical.

Suggestion 10.—Where it is practical, it is suggested that all employees be inspected daily, especially in times of epidemic. If this is not practical, physicians should arrange with foremen to require all employees who have the appearance of illness, those who have eruptions in particular, and all who do not feel well to report at the dispensary for diagnosis. It is scarcely necessary to suggest further that all who are found suffering with communicable disease should be excluded and health officers notified of all reportable cases.

Treatment of Trivial Illness

It seems that industrial workers, as well as others, are prone to ignore or neglect non-incapacitating illness, for example, headache, colds, constipation, etc. As these are sometimes early symptoms of more serious illness, employers have found it advantageous to production, as well as beneficial to the workers, to have all these indispositions which become evident during working hours treated by their physicians.

Suggestion 11.—In the interest of efficiency and for the maintenance of health among industrial workers, it is suggested that physicians encourage workers to seek treatments for the relief of trivial illness, occurring during hours of employment, which ordinarily they would neglect.

Prophylactic and Emergency Dental Attention

Inasmuch as neglect of teeth, which is quite prevalent, results in a variety of infections and other incapacitating diseases, employers are finding it to their advantage more and more, and to the benefit of the workers, to provide prophylactic and emergency treatment of teeth among the workers.

Suggestion 12.—In view of the fact that prophylactic dental treatments are of great educational value in the maintenance of health and are measures of known value in the prevention of certain incapacitating diseases, and in view of the additional fact that the treatment of dental emergencies—toothache, etc.—arising during working hours is useful in giving relief and enabling workers to continue employment, it is suggested that industrial physicians procure personnel and facilities for dental service, prophylactic and emergency, and seek to encourage workers to avail themselves of it.

Surgical Treatments

The most evident reason for industrial medical service is, of course, the treatment of injuries as a function necessary to the maintenance of health, but it is necessary also to emphasize the fact that this is but one of several important functions. Its importance is determined largely by its emergency features. Measures which prevent the need of surgical treatments and also medical treatments, would seem to be equally essential and of perhaps greater importance. Also, reconstructive surgery has recently come to the attention of industrial physicians and seems to be a reasonable function in the activities necessary to the rehabilitation of injured and deformed workers.

Suggestion 13.—Industrial physicians recognize the necessity of surgical service in the treatment of injuries; it is suggested that they extend that surgical service to include, so far as possible, reconstructive measures designated to aid in the rehabilitation of injured and handicapped workers. It is suggested that physicians do not allow the urgency of surgical treatments to overshadow the purely hygienic functions of medical service, which are likewise of much importance.

LIVING AND COMMUNITY CONDITIONS

Employers may be exceeding their responsibilities when they endeavor to assist workers in handling difficulties which arise in their personal affairs and when they attempt to improve community conditions, yet employers have a definite interest in these matters in so far as they cause worry and impairment of vitality among workers.

Social Aid

The position which physicians occupy in the lives of people confers upon them, to a certain degree, the duty of advising them in the solution of problems that are more or less of personal and community relationships.

Suggestion 14.—Inasmuch as physicians occupy a position which is close to the hearts of the working people, it is suggested that they take advantage of this relationship, (a) to advise and assist workers in the adjustment of social and financial troubles, (b) to encourage thrift, domesticity, sobriety, and morality, and (c) to offer instruction in health and sanitation. In these establishments which have sociological departments, physicians may be expected to cooperate with them in the foregoing activities.

Medical Aid

Sometimes workers are unable to obtain adequate medical, dental, and nursing attentions for themselves and their dependents and, although employers may not be responsible, they realize these conditions may be sources of considerable worry to the workers and therefore detrimental to production.

Suggestion 15.—Because of knowledge which physicians have of doctors, dentists and nurses, hospitals, clinics and nursing relief societies of their communities, it is suggested they endeavor to assist workers in procuring adequate service for themselves and their dependents, when workers are unable to procure it, in order that the worry incident thereto may be avoided, or reduced, at least, to the minimum. Actual nursing aid may be given advantageously for short periods, by visiting nurses of the establishments, acting under the direction of the patients' own physicians.

Community Aid

Through their relations with workers in connection with social and medical aid, industrial physicians frequently become aware of community conditions unfavorable to health.

Suggestion 16.—As an aid to community betterment, it is highly desirable that industrial physicians use the information they acquire of unfavorable community conditions in affecting remedial measures through cooperation with local and state authorities, and other industrial establishments.

ENHANCEMENT OF KNOWLEDGE

Realizing that industrial hygiene and medicine is relatively new and in the developmental stages, the U. S. Public Health Service recognizes the value of cooperation with physicians of industrial establishments in order that the service may act as an agency for the collection and distribution of information intended to develop and enhance further the value and opportunities of industrial hygienic and medical service.

Research

Industrial physicians are in a splendid position to carry on studies of working conditions in their relation to health and of measures for their correction.

Suggestion 17.—For the purpose of furthering the development of the science of industrial hygiene and medicine and in order to contribute substantially to its development, it is suggested that, in cooperation with the U. S. Public Health Service, Division of Industrial Hygiene and Medicine, industrial physicians (a) carry on researches and (b) disseminate the information secured thereby through the medium of scientific meetings, journals, etc. In this connection, the U. S. Public Health Service is prepared to direct researches and to supply personnel to conduct them if desired.

Instruction of Medical Personnel of Industrial Establishments

Industrial physicians, as a rule, find their time taken up with routine work, and, as a result, they are, perhaps unconsciously, in danger of becoming restricted in breadth of knowledge and limited in scope of activities.

Suggestion 18.—For the development in knowledge and usefulness of the medical personnel of individual establishments, it is suggested that industrial physicians hold scientific meetings of their personnel, when of sufficient numbers, for study and discussion of those matters that

particularly concern the health problems of their industries. It is also suggested that they arrange conference groups for like studies.

PERSONNEL AND FACILITIES

Desirable though it may be to indicate specifically what personnel and what facilities are essential adequately to carry out the foregoing suggestions, to do so is quite impossible. It is assumed that industrial physicians have the knowledge necessary to put into effect the functions indicated.

Suggestion 19.—It has been observed, however, that industrial physicians very generally are handicapped by the lack of sufficient personnel and adequate quarters and equipment. It is suggested, therefore (and this is intended chiefly for employers themselves) that industrial physicians secure sufficient authority adequately to house, equip, and man their departments in order that they may be of the greatest usefulness.

If employers do not feel that they can endow their physicians with this authority, it is an indication they have selected their physicians unwisely.

OPPORTUNITIES OF INDUSTRIAL HYGIENE AND MEDICINE

The science of industrial hygiene and medicine is the science of medicine applied to industrial service. It is prolific in opportunities for usefulness in the conservation of health and limb, and through this, in the promotion of industrial efficiency and the facilitation of production.

Suggestion 20.—In view of the inestimable opportunities which industrial service offers physicians to exercise their knowledge and skill, not only in the behalf of industry, but also in the behalf of industrial workers, it is suggested that industrial physicians bring themselves to a full realization of the dignity of their profession and the value of the service they are capable of rendering. This can be done only by the concentrated application of their time and efforts in the service and a complete availment of the opportunities it offers in the prevention of illness as well as in the treatment of injuries.

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EMERGENCY INFLUENZA HOSPITAL AT WILMINGTON

Erected in Forty-Eight Hours Complete in Every Detail—Achievement of Emergency Fleet Corporation

By JOHN MICHAEL STADTER, M.D., Emergency Fleet Corporation, Wilmington, Del.

The erection of a hospital complete in every detail from foundation to equipment within forty-eight hours, is one of the many achievements of the Emergency Fleet Corporation of the United States Shipping Board. This feat was accomplished by the Emergency Fleet Corporation during the influenza epidemic at Union Park Gardens, Wilmington, Del., Lynch Construction Company, contractors, where more than five hundred dwellings were in course of erection for shipyard workers.

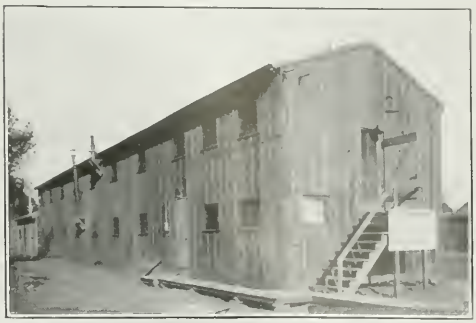

Fig. 1. Front view of the emergency hospital.

Fig. 2. Rear view of the emergency hospital, showing the diet kitchen.

This quick action on the part of the government in providing an emergency hospital where the men could be taken and treated as soon as symptoms of the disease appeared no doubt saved the lives of many workmen, as out of 124 cases treated there were but four deaths. This achievement, however, is only a fair example of how the Emergency Fleet Corporation looked after its men from Maine to Florida during the epidemic.

At Union Park Gardens there were employed forty-three hundred men. The physician in charge early in the epidemic saw the necessity of an emergency hospital to take care of the men working on the government project. No time was lost. The hospital was started from the foundation, completed, fully equipped, and ready to receive patients within forty-eight hours.

Fig. 3. Ward where patients were received and cases treated.

It was a one-story frame structure built to accommodate seventy-five patients; in an emergency it could be equipped with a hundred beds. Notwithstanding the way it was rushed to completion, the hospital contained every convenience for patients and attendants, and no detail was overlooked. There were shower baths, laundry, medicine closets, and a chart room. The electric lighting arrangements were excellent and plumbing met all the requirements of the city board of health and the sanitation department. The hospital was heated by wood-burning camp stoves with smoke pipes running below the ceiling.

Wind shields were provided for each window to deflect fresh air toward the ceiling, and no pains were spared to make the sanitary conditions as perfect as possible under the conditions.

The total cost of the construction and equipment of the building was $4,060.32, divided as follows: construction, $2,867.82; commodities, $773.65; medical supplies, $118.85; laundry, $300.

The hospital staff consisted of the following members:

Fig. 4. View of convalescent ward. Here the patients were retained three days after their temperature was normal.

physician in charge, day supervising nurse, night supervising nurse, eight Red Cross helpers, two dental students acting as orderlies daily, one janitor, and one night orderly.

In the bunk houses fifteen hundred laborers and mechanics who were staying on the grounds were housed. At the start these bunk houses were inspected every morning, and any man found with influenza was sent to the hospital, and his temperature, pulse, and respiration were taken on his admission. In a majority of cases, where one man was found suffering with the disease in a bunk, the surrounding two or three bunks became infected with the malady. After these men were isolated in the hospital, we found that the infection was stopped in that area of the bunk houses; upon its appearance in other bunk houses the same course of action was repeated.

Signs were placed about the bunk houses instructing any man who felt sick to notify the physician in charge at once or to appear before him at the earliest opportunity. A tour of the bunk houses was made in the morning, and, if any man was found not inclined to work, his temperature, pulse, and respiration were taken. Sanitation and hygiene to the highest point of efficiency were carried out in the bunk houses and the commissary.

Fig. 5. Front view showing arrangement of diet kitchen.

Fig. 6. Rear view showing arrangement of diet kitchen.

For the protection of the men during the epidemic, lectures were given on the sanitation of the bunk houses.

Out of fifteen hundred men occupying these bunk houses, 124 entered the emergency hospital, some of whom had a temperature on admission as high as 105 degrees. On the admission of these patients to the hospital, Treatment No. 1 was given, and Diet No. 1. After the temperature had become normal, the patients were allowed to convalesce three days in the hospital and then sent to their respective bunk houses to resume their usual diet and occupation. None returned with a recurrence.

Diet No. 1 consisted of broths and milk; Diet No. 2 consisted of soft-boiled eggs, toast, and milk.

Treatment No. 1, given immediately upon admission to the hospital, consisted of 10 grains of aspirin, 10.3 grains of quinine sulphate, compound cathartic pills, and no other medication for twelve hours. The patient was then put upon Treatment No. 2, which consisted of 5 grains of aspirin, 4 grains of quinine sulphate, 2 grains of cascara, with injections of 5 minims sero-vaccine every three days.

Any patient developing physical signs of pneumonia was immediately isolated in a private room. These patients were treated with sero-vaccine, and regulation pneumonia treatment followed.

A hundred twenty-four patients were admitted to the hospital during the epidemic. Two of this number died of bronchial pneumonia and two from endocarditis. Workmen applied daily at the emergency hospital dispensary for treatment. Special attention was paid to their temperature, pulse, and respiration, and, if these were found to be abnormal, the patient was immediately put to bed and a complete physical examination was made.

On an average, twenty-five patients a day applied to the dispensary for treatment, some suffering from contagious diseases, some not. Others were treated for minor conditions. The total number of patients treated at the dispensary was 168, making a total of 292 which the hospital treated.

For the protection of those in the bunk houses during this epidemic, rules were made and put into force, compelling all incoming laborers and mechanics to pass through the government inspection office upon their application for a position. These cases were thoroughly inspected, and a physical examination was made to prevent any laborer or mechanic coming from other cities from spreading the disease in Wilmington. Any men found suffering from a contagious disease were placed in the hospital and kept there until fully recovered.

Considering the low mortality, I would say that sanitation, hygiene, isolation, and early treatment are the chief factors in the successful treatment of influenza.

DEPARTMENT OF DIETETICS

Conducted by LULU GRAVES

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Home Economics Building, Cornell University, Ithaca, N. Y.

THE IMPORTANCE OF FLAVOR IN FOOD

Extracts Which Add to the Palatability of Food Have Real Dietetic Function—Especially Important to the Sick

In an attempt to strengthen the existing prohibition laws, some of the states are proposing laws so stringent as to interfere greatly with the sale of flavoring extracts. The effect on hospitals of such legislation may be similar to that of a few years ago when oleomargarin was put under the ban.

We all concede that margarin has its advantages for cooking purposes when properly used. It also serves as an inexpensive substitute for a high-priced product.

Flavoring extracts have a distinct place in preparation of food and are particularly desirable in hospitals. No one would claim for flavoring extracts a nutritive value in any way comparable to that of chocolate, caramel, fruit juices, etc., but in contributing to the palatability they have food value which should not be ignored.

What hospital, hotel, or other institution serving large numbers of people could obtain enough of these natural flavoring materials to supply its needs? The question is not of cost only, though that is no mean consideration, but of supply. It would be practically impossible for hospitals to procure sufficient amounts of these materials to meet their requirements throughout the year.

It is scarcely necessary to mention the importance of palatability and attractiveness in feeding the sick. What use would it be to make custards and desserts if these were not flavored? These are made from foods which are most desirable from the standpoint of nutrition—eggs and milk, or cream—but which have a bland flavor which makes them tasteless and unpalatable without the addition of some material for flavoring. We have innumerable instances of the food value of flavor, of foods which appeal because of their palatability. Maple syrup is considered by all of us to be far superior to other syrups, not because of greater nutritive value but because of flavor.

Flavoring extracts were included in the list of things necessary for the United States Army. The troubles of the dietitian will be multiplied if she is asked to feed patients and employees of hospitals with only natural flavors accessible. Her bills will be greatly increased, but her troubles in preparing desserts which will be eaten will be even more greatly increased. As yet alcohol seems to be the only medium in which some of these volatile oils may be held in solution. For example, in order to hold 5 percent of lemon oil in solution, 80 percent of alcohol must be present; reducing the amount of alcohol reduces the amount of lemon oil held in solution until, with 45 percent of alcohol, practically no oil can be present. Such an extract will give a distinct odor of lemon and if colored yellow will find a ready sale.[1] Several chemical compounds have been prepared which have an odor similar to that of some fruits. Amyl acetate has an odor resembling that of banana, butyric ether that of pineapple. These, however, require the use of alcohol, but there are other mixtures of purely chemical substances which might be put upon the market and which we do not wish to use in the diet of the sick.

We are not asking that the prohibition laws be repealed to provide us with flavoring extracts, but we do hope that we shall have no legislation which will place an unnecessary burden upon the hospital.

[1] Olsen, John C.: Pure Foods, Ginn & Co., p. 186.

* * * *

A GOOD EXAMPLE

Scientific Hospital Feeding Carries Suggestions for Every Dietitian

Concrete discussions are always interesting, and one invariably makes application of any principle or practical illustration to one's own particular sphere. Sometimes a method may be valuable from a negative standpoint, while others apply directly. Mrs. Pett, in the following article, has told us of the careful way in which the patients of Winona General Hospital are fed and the details of procedure are given in such a way as to be easily understood. While these same details may not be possible in all hospitals, the same care can and should be given to the feeding of patients in any hospital.

The nurse with sufficient knowledge to measure up to the standard Mrs. Pett has mentioned as ideal is the exception. Much is being done in the way of treating special patients by diet in the majority of our progressive hospitals. It would be interesting to know how others are meeting this problem. We hope that the good example set by Mrs. Pett will be followed as it should be, and that we may have a report from many others as to how they are treating patients by dieto-therapy with the facilities at hand. It would also be interesting to know how many hospitals have any facilities for this kind of work.

* * * *

SCIENTIFIC HOSPITAL FEEDING

Necessity of Adapting Diet to Patients' Needs and Tastes—How a Simple Chart and System of Records Makes the Work More Easy

By CLARA G. PETT, Former Dietitian Winona General Hospital, Winona, Minn.

To the trained dietitian her profession becomes not only an obsession but a delight. From the returning vigor of patients and their many expressions of appreciation, she realizes that by the application of the arts known to her craft she has helped to win many doubtful battles and that in so doing she has been richly rewarded.

I recall an exceedingly difficult diet in the long obstinate convalescence of a male patient. Eggs were most necessary, but they were very distasteful to the patient, particularly the yolk. To overcome this difficulty the whites of two eggs were served in place of a yolk; for the valuable fat and minerals were substituted cream and pureed vegetables, in this particular case spinach and carrots.

The slightest details in the preparation of this tray were religiously guarded; no lukewarm temperatures were tolerated. Hot foods were hot and cold foods were cold. The golden brown toast and the juicy scraped beef pat-

ties were done to a turn, and, piping hot, they were rushed to the patient's room. Does such vigilance pay? The answer is obvious. At the end of the sixth week the patient left the hospital greatly improved. Now at the end of a year he is well and hearty.

Successful feeding in a hospital depends on the two following principles: first, the selection of foods to meet the pathological requirements of patients, which means that the foods should be properly combined with reference to values and chemical reaction in the process of digestion; that the preferences of the patients consistent with the diet prescribed should be recognized, in so far as possible; and that the psychological value of the esthetic should always be considered in the serving; secondly, patients should be served just enough to nourish them properly and no more.

The question of quantity is very important, and a unit of measurement is absolutely essential to its regulation. Research in foods has established the calorie as a unit of food measurement. Its use in hospital feeding is greatly facilitated by serving food in 100-calorie portions. Research has also established the number of calories required by persons of various ages, weights, and under various physical conditions.

In the satisfactory development of the two underlying principles indicated above, the dietitian should be ably assisted by senior nurses. High school or college graduates, familiar with the branches underlying dietetics, i. e., physiology, inorganic and organic chemistry, bacteriology and psychology, are, of course, ideal. Such nurses, supervised by the dietitian, could weigh and carefully supervise the diets of eight or ten patients each, the number of patients depending upon the nature of the diets. The responsibility for each nurse's assignment of diets should be thrown entirely upon her, and the nutritive and aesthetic values thoroughly emphasized. In hospitals of fifty or seventy-five beds, one cooking laboratory is sufficient. Adjacent to this should be a serving or tray room generously provided with cupboards and shelves, tables, gram scales for weighing, and dishes marked in grams and cubic centimeters for measuring food. A bread-cutter and a butter-cutter, each adjusted to cut in 100-calorie portions, are also required.

The shelving in the tray or serving room should be divided into as many sections as there are classes of diets, i. e., liquid, soft, light, and full, and so marked. All the patients on these diets do not receive the same number of calories; among the "fulls," for instance, a certain number receive 2000, and others perhaps 2300 or 2800, as the case may be. Consequently the section marked "Fulls" is subdivided into three divisions, each one marked by a large card indicating the number of calories which that division is to receive.

Name	Date	Room	Age	Weight	Diet	Calories	Remarks
James White	Feb. 7	7	35	154	Full	2,000	No butter Prefers milk

Tabular charts, like the one shown should be hung in the serving room for reference in the preparation of the patients' trays. The information which it calls for is supplied by the dietitian. As will be seen, the charts bear the name of each patient, date of entrance, room, age, and weight, taken if possible upon entrance, the diet prescribed by the physician—whether liquid, soft, light or full—and the number of calories required. Under "Remarks" are noted individual dietetic peculiarities as discovered by the dietitian in her daily visits to patients. This record is of great assistance in giving the personal touches so pleasing to patients.

This method of feeding may readily be adapted to the requirements of a larger hospital by increasing the number of diet kitchens and serving facilities in proportion to the number to be served. The equipment outlined above is sufficient to care for seventy-five trays.

On a strictly liquid diet a patient receives about 5 calories per kilogram of body weight. On a soft diet 15 are given; on light, 20, and on full diet, from 25 to 30.

From these charts the patients are classified according to the number of calories required, and the trays are placed in the section and division of the tray room which is marked to correspond to the calories being given the particular patient. Two sets of menus for each type of diet, (full, light, soft, and liquid) are made out, one for the cook and one for the servers. The latter are made out in 100-calorie portions. A sample menu for one day for "fulls" is given below:

	Grams	Calories	Protein	Fat	Carb.
BREAKFAST. 700 CALORIES					
Baked Apple	65	100	1	3	96
Toast	66	200	22.6	3.2	122.4
Butter	14	100	1	99	0
Cocoa	155	100	16	44	40
Oatmeal	112	150	8	8	134
Cream	50	100	5	86	9
Sugar	13	50	0	0	50
		700			
DINNER. 800 CALORIES					
Clear Tomato Soup	210	100	4	28	22
Saltine Crackers	11	50	5	18	32
Swiss Steak	34	100	35	48	17
Baked Potato	85	100	11	1	88
Creamed Peas	38	50	9	18	57
Graham Bread	39	100	14	6	80
Butter	14	100	1	99	0
Milk Sherbet	54	100	4	12	84
Full Cream	26	100	2	95	33
		800			
SUPPER. 500 CALORIES					
Cream of Corn Soup	110	100	6	19	50
White Bread	37	100	14	6	80
Milk	144	100	19	52	29
Butter	14	100	1	99	0
Pineapple	65	100	4	6	90
		500			

To make clear the practical working of the method, the diet of one James White will be followed through for one day. According to the chart his age is thirty-five, weight 154 pounds or 70 kg. He is now sitting up four hours daily and walking about his room. He is on full diet and is to receive 28 calories per kilogram of body weight or 2000 calories.

In planning the number of calories for each meal, 700 are allowed for breakfast, 800 for dinner and 500 for supper. On this patient's tray which is in the 2000 division of the "Fulls," are placed for breakfast 65 gm. or 100 calories of baked apple, 66 gm. or 200 calories of toast, 12 gm. or 50 calories of sugar, and 25 gm. or 50 calories of cream for oatmeal.

Referring to the chart under "Remarks" opposite James White's name, it is found that he does not eat butter. To bring up the fat content, he is given heated cream for his toast. The nurse refers to a table of values near at hand and finds that in place of the 14 gm. of butter, 50 gm. of cream must be given to equal 100 calories. She also finds from the chart that he prefers milk to cocoa. Again, if necessary, she refers to the table of values and places in his tray 144 gm. or 100 calories of milk in place of 155 gm. of cocoa for which the regular menu calls. These two changes in regular diets show how easily and helpfully patients' wishes may be regarded. The *hot* toast and cereal are quickly added to the tray. After inspection by the nurse in charge of this section, the tray is placed in a closed heated cart and sent at once to the patient. The more direct the more satisfactory the service. When the tray is returned to the serving room it is again inspected. If all the food has not been eaten, an effort is made to

learn whether it is because of the quantity, or the quality of the food or because of the attitude of the patient, and, if possible, the defect is removed before the next meal. If any food is left it is weighed and a record of the net calories consumed is kept. After the evening meal, the total calories consumed for the day are recorded on the patient's clinical record sheet for the information of the physician in charge.

Doubtless the criticism will be offered that this method requires too much time and help, but through its actual use it has been demonstrated that the two aims in a hospital most to be desired have been accomplished, i. e., the satisfactory nourishment and improvement of each patient at a minimum cost. The food has been wisely selected with reference to values, combined in properly balanced menus, and served in such quantities as practically to eliminate all waste.

The hospital dietitian is confronted by many problems—those of harmonizing tastes and uniting economic and physical conditions into a system which will bring best results to patients, physicians, and nurses. That she may successfully meet these requirements her work should be as carefully standardized as is that of the pathologist or the chemist. Only women of broad education and deep sympathies, filled with the spirit of service, can successfully work in this field, as yet almost unexplored and unrecognized.

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A Comprehensive Text Book on Dietetics

As the name implies, "Dietetics for Nurses," by Fairfax Proudfit, is written primarily for use as a text or reference book for nurses, and it meets this great need better than the majority of books which have been available. The subject matter is divided into three sections, as follows: (1) Food and Its Significance, (2) The Human Machine and Its Relation to Food, and (3) Nutrition in Disease. The first section treats of food materials, their composition, and nutrition value. The common food materials are mentioned briefly, the table of food composition from Bulletin 28 of the United States Department of Agriculture is included, and a number of recipes, together with the number of servings and the number of calories furnished by each recipe, are given. One chapter devoted to special diets, percentage calculations, and the metric system touches lightly on points that might have been very valuable with a little more detail. The second section, The Human Machine and Its Relation to Food, is a discussion of the food requirements of the body including an enumeration of the methods of feeding and a description of the processes of metabolism. The third section, Nutrition in Disease, comprises the greater part of the book. Infant feeding and the diseases that require dietotherapy are discussed. The subject matter is supplemented by diet lists, recipes, and directions for administering treatment and making laboratory tests. The book contains what the nurse should know about the treatment of disease by diet, but includes nothing beyond her needs. However, some of the material might well have been given more elaborate treatment.

Dietetics for Nurses. By Fairfax T. Proudfit, Former Instructor in Dietetics in The Lucy Brinkley and Baptist Memorial Hospital, Memphis, Tenn. Cloth, pp. 444, $2.25. The Macmillan Company, New York, 1918.

* * * *

A Valuable Book on Food Discoveries

"The Newer Knowledge of Nutrition" is just what its name implies—knowledge newly obtained by a series of experiments in which animals were systematically fed. Customary classification of foods on the basis of chemical composition is in no wise interfered with or questioned by Dr. McCollum in this discussion; in fact, he says that we must "consider foods on the basis of their protein, carbohydrates, fat, water and mineral content as we have always done," but he points out very clearly the fallacy of considering these principles exclusively. In order to maintain normal nutrition and prevent disease, the "protective foods," milk, eggs, and the leafy vegetables, must have a prominent place in the dietary, as explained in Dr. McCollum's article, "Conservation in the Planning of Diets," which appeared in the February issue of THE MODERN HOSPITAL, page 147. These foods contain valuable accessories which Dr. McCollum has called fat-soluble A and water-soluble B, but which have been properly termed vitamines. The correct proportion of these in the diet protects one from danger of "deficiency diseases," such as scurvy, pellagra and beri-beri. The importance of "protective foods" in the diet of the nursing mother, the harm which may result in families of limited means whose diet consists chiefly of bread, potato, and macaroni, and the need for milk in the diet of the adult as well as in that of the child are all told in language which the housewife can understand. The medical man and dietitian will find "Newer Knowledge of Nutrition" a valuable help in treating diseases requiring dietotherapy.

The Newer Knowledge of Nutrition. By E. V. McCollum. Cloth, pp. 199, $1.50. The Macmillan Company, New York, 1918.

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Explosion of Cooking Utensils

The following item from the *Institution Quarterly* of Springfield, Illinois, is significant.

"Recently the managing officer of the Kankakee State Hospital reported the violent explosion of a copper kettle in one of the kitchens. Fortunately no one was near, and no injury to any person resulted. The cause of the explosion has not been determined.

"In making his report, the managing officer referred to the fact that originally these kettles were provided with safety valves, but that a former chief engineer had removed them for reasons of his own.

"About a year ago a similar explosion occurred in one of the kitchens of the Anna State Hospital, and a patient who was working near the kettle was seriously injured. The cause of the explosion of this kettle was never determined.

"This explosion at Kankakee, taken in consideration with that at Anna, suggests the necessity of a general report to all institutions with recommendation that each managing officer have all his cooking utensils thoroughly surveyed and protective and safety devices installed."

* * * *

NEWS NOTES OF DIETITIANS

The Chicago Dietitians Association met Friday evening, April 18, 1919. The speaker of the evening was Dr. W. D. Sansum, physician at Presbyterian Hospital and Central Free Dispensary of Chicago. Dr. Sansum gave an interesting lecture on diabetes. Charts were exhibited showing different cases that had been treated at the dispensary and hospital. Various dishes, such as salads, desserts, bread (diabetic muffins), were illustrated by having the prepared food on the table. Dr. Sansum selected the diet from the various dishes, illustrating what can be given for a certain tolerance. It was interesting to the student dietitian, and, I am sure, to the layman, though there was nothing new or startling to you or to me. There

were thirty-eight dietitians present. No other business was discussed at this meeting.

Miss Cecile Haines of Sayre, Pa.—a graduate of State College, Pa.—has recently been appointed dietitian of the Palmerton Hospital, Palmerton, Pa. Dr. Roger Batchelor, the superintendent, has just returned from overseas duty.

Miss E. Grace McCullough, who has been head dietitian at Peter Bent Brigham Hospital, Boston, has been appointed by the Rockefeller China Board to systematize the dietetics of the Peking Medical College and to organize the dietary department of the new hospital now in the course of construction and connected with the college. Miss McCullough leaves Peter Bent Brigham June 1 and will spend June and July buying equipment and making other necessary preparations for her new work. She plans to sail for China about the first of August.

THE MODERN HOSPITAL extends congratulations to Miss McCullough upon being given the opportunity to do such a valuable piece of work. That she is eminently fitted to assume such a responsibility no one will doubt who knows of the things which she has accomplished in the hospital field.

Miss Ethel Torbert has gone to Lakeside Hospital, Cleveland, Ohio, as first assistant dietitian. Miss Torbert is a graduate of the home economics department of Cornell University.

Miss Blanche Joseph, field dietitian, Michael Reese Dispensary, Chicago, is offering a three months' course of training in field dietetics.

This is a new phase of social service which is proving of great value, and the course Miss Joseph is offering is well planned to meet the present need, as the following synopsis of the work will show.

The work of the first month will be devoted to (a) visiting different institutions, (b) acquiring knowledge of various agencies, (c) clerical work, and (d) visiting with the field dietitian in the homes of patients.

In the second month the time will be spent in (a) assisting in food clinic work, (b) work in the clinic with physicians, (c) following up cases which have been seen during the various clinics, and (d) work with the pediatrician among the undernourished.

During the third month the student will be given (a) charge of food clinics, (b) the duty of making out special diets for diabetic, nephritic, and gastric-ulcer patients, (c) a course at the Chicago School of Civics for one hour each week in work pertaining to social service, and (d) conferences with the dietitian.

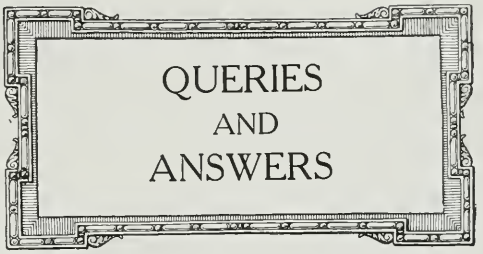
If the student dietitian has any special preference in field dietetics and cares to specialize in welfare dietetics, a change in course will be adjusted to meet the demand.

Young women not from Chicago will be able to make arrangements for room and board, either at the Y. W. C. A. or at one of the Eleanor Clubs. Prices range from $4.50 to $6.50 a week. Lunch and carfare, while the student is at the dispensary, will be paid by the institution.

For further particulars address Miss B. M. Joseph, field dietitian, Emanuel Mandel Dispensary, 1012 Maxwell Street, Chicago, Ill.

Miss Mary K. Campbell, Minneapolis, Minn., is in the dietary department of the Henrotin Hospital, Chicago, for three months.

Miss Eleanor Pratt, formerly of Westmoreland Hospital, Easton, Pa., has accepted a position as dietitian at the Lawrence and Memorial Hospitals, New London, Conn.



Sterilizing Plant for Small Sanatorium

To the Editor of THE MODERN HOSPITAL:

We are building a twenty-six-room sanatorium, and are in special need of information as to the best method of equipping the sterilizers. The building will be two stories and a basement, and we expect to put in a standard sterilizing plant. We have constant day-and-night electric indirect current, and we will have for heating the building low-pressure steam. Fuel here is high and electricity costs about five cents per kilowatt for heating, and twenty cents for light.

Is it possible to supply steam for the sterilizers from the boiler used for hot water for the building?

SUPERINTENDENT OF TEXAS SANATORIUM.

If you purpose to do no other work besides your sterilizing by high-pressure steam, such as the running of your diet kitchen steam tables, your cookers, your bed-pan and blanket warmers, your laundry equipment, or the heating of your domestic hot water, it would be advisable to use electricity. This is figured on the basis that the high price of coal plus the wages of a man competent enough to run a high-pressure plant without ruining it in a very short time would cost you more than electricity and not be nearly as convenient.

If, however, you are going to do all, or even the greater part of the work as enumerated above, with high-pressure steam, which is advisable, then it would not pay you to put in a separate apparatus for operating electrically.

Hospitals Furnish Instruments, Etc.

To the Editor of THE MODERN HOSPITAL:

Are drugs, gloves, and instruments for the dressing trays, etc., usually furnished by the hospitals? In our thirty-bed hospital it is the custom to furnish these, but I have visited many hospitals and find few this size as well equipped.

SUPERINTENDENT OF SMALL HOSPITAL.

Drugs, gloves, and instruments for dressing trays unquestionably should be furnished by the hospital, and in most cases it will be found that they are. In some instances instruments and gloves are furnished in the operating room by the surgeon, but this is not considered good practice.

To Keep Veneer From Curling

To the Editor of THE MODERN HOSPITAL:

We are having considerable trouble with the veneer at the bottom of the hall doors in our infirmary. It is quite necessary that the floors should be frequently mopped, and the moisture softens the glue, causing the veneer to curl.

What do you consider the best thing to do in a case like this?

PHYSICIAN IN CHARGE OF EASTERN HOSPITAL.

The veneered doors which give you trouble through the frequent moppings of the floor should have been thoroughly painted on the bottom before they were used; this treatment should be applied at once to those which are still in good condition.

Specification should always require the thorough paint-

ing of the bottom edges and the staining and varnishing of the upper edges of doors, but this precaution is generally omitted except when buildings are erected under the supervision of experienced architects.

Carefulness in mopping will also help to obviate the condition of which you complain. Doors can usually be opened so that it is unnecessary to slop water and soap against them. There appears to be no more reason for doing it to doors than there is to furniture. It is usually no harder to open a door than it is to move a piece of furniture.

Ratio of Equipment to Hospital Beds

To the Editor of THE MODERN HOSPITAL:

In a city of thirty thousand inhabitants, what is your estimate of the number of hospital beds that should be available? Is there any authoritative decision on this point? In the men's ward, how many toilets, baths, and urinals are necessary? What is the standard number of cubic feet of air per patient and the number of removal per hour? What is the standard width of beds, and what should be the distance between beds?

PACIFIC COAST ARCHITECT.

In a community of thirty thousand persons there should be 600 hospital beds for all purposes, the consensus of opinion being that there should be approximately one bed for every five hundred inhabitants. For a male ward of twenty-four beds, there should be two toilets, one bathtub, and one sitz tub. By no means should there be any urinals. Leading engineers maintain that there should be one thousand cubic feet of air per patient changed three times an hour. A standard hospital bed is 3 feet wide, and beds should be placed at least 4 feet apart and at least 18 inches from the wall.

The Daily Allowance of Linen

To the Editor of THE MODERN HOSPITAL:

According to the experience of hospital administrators and their housekeeping departments, what is believed to be an average daily allowance of linen per bed for ward and private patients? Our new hospital has 300 beds and we wish to base our initial stock and the reserve stock upon this average.

HOUSEKEEPER OF WESTERN HOSPITAL.

Ward patients need one large sheet, one draw sheet, one pillow case, one bath towel, one face towel, one wash cloth, one gown each day and two spreads a week, in the usual clean cases. It is not possible to keep bed patients clean and odorless with less.

Obstetric cases, septic cases, fever patients, patients in other grave conditions, and those who have drainage or involuntary discharges average much more than this.

Private patients should have each day two large sheets, two pillow cases, one draw sheet, one spread, two bath towels, two wash cloths, and one gown in the usual cases, and more when needed. It is not possible to lay down hard and fast rules.

Community Hospital for a Mill Town

To the Editor of THE MODERN HOSPITAL:

What would you think of the plan of placing a hospital on the third (top) floor of a community building in a mill town, with a population of twenty-five hundred families? The building is intended to house a gymnasium, motion picture house, class room, domestic science department, and other welfare activities. The dimensions of the building are 72 by 100 feet, but the hospital on the top floor is intended to occupy only half this space; that is, it is to be 72 by 50 feet.

INDUSTRIAL PHYSICIAN.

The problem is rather an interesting one, in that it shows the trend of community thought, but we believe the solution that is offered is not altogether practicable. The very time of the day when quiet is most wanted around a hospital would be the time when a community house, properly used, would be the noisiest. In addition to this, it is hard to conceive of a community house, properly built for that purpose, that would offer facilities in only half the space of the building, i. e., 72 by 50 feet, for hospital purposes. It would be very hard to divide this space for a hospital. A small, isolated house, no matter how small, would probably offer better hospital facilities, than would be found in this, interesting as the experiment would be.

Relations Between the Superintendent and the Attending Staff

To the Editor of THE MODERN HOSPITAL:

Can you suggest the best policy to follow in securing cooperation between superintendent and attending physicians? I am at present superintendent of a small hospital which has been forced to change superintendents five times in as many years, because of friction with the medical staff. I feel that it is my duty to do what I think will bring the most lasting good to the institution and the sick people it cares for, but I do not always find it possible to do this and please the physicians at the same time.

WESTERN SUPERINTENDENT.

The only possible basis for efficient administration of a hospital is one of definite understanding between the superintendent and the medical staff. It is essential, of course, to do everything consistent with good hospital practice that the staff needs and wants, and to please them in every way possible, but at the same time, it is not possible always to pay attention to the individual preferences of the members. The superintendent should establish definite policies of medical administration, taking the staff into his confidence in forming this medical policy, and then adhere to it, regardless of the idiosyncrasies of the various members. Such a procedure may work a little hardship for a while, but, as all those who have tried it have found, it is bound to react for better working conditions in the end.

LABORATORY DENTAL CLASS AT McHENRY HOSPITAL

Two Skillful Hands and Good Eyes Are the Only Necessary Qualifications for Mechanical or Laboratory Dentistry —Large Field for Trained Workers

To the long list of vocations which are being taught the returned soldier at General Hospital No. 2 has been added laboratory dentistry. It is not necessary to be a graduate dentist to enter this department, and the course will appeal to all men who enjoy fine mechanical work and who are skillful with their hands.

Captain Anglemire, under whom the class is being organized, says: "Expert crown and bridge workers in dental laboratories are always in demand. In all cities of 50,000 or over, there are places for men with this vocation, and it is a profitable one."

Daily the list is growing of the kinds of instruction, which, in spite of the "employment problem," will put the doughboy back on his old peace-time basis of independence and self-support, and it is by no means the doughboy alone who will profit. The public also comes in for its share of benefit, when, as in this case, the retrained men will enter a field where men are needed. A number of professions are being "discovered," to the lasting benefit of the worker and the public.

OCCUPATIONAL THERAPY, VOCATIONAL RE-EDUCATION AND INDUSTRIAL REHABILITATION

Conducted by DOUGLAS C. McMURTRIE, *Director Red Cross Institute for Crippled and Disabled Men* and ELIZABETH G. UPHAM, *Advisor in Occupational Therapy, Milwaukee-Downer College.*

THE NEW UNDERSTANDING

The Same Sympathy Which the War Has Created Between the Classes Must Exist Between the Crippled and the Sound—The First Essential of Rehabilitation Is to Do Away With the Cripple's Idea that He Is Different from Other Men

By HELEN I. HOPPIN, Milwaukee-Downer College, Milwaukee

The tendency of our day toward democracy is expressed in more ways than in the freeing of serfs and the organization of charities. In a hundred directions it begins to be felt that if things are unfair, it is up to us to stop them. Responsibility supplants indifference. The theory of democracy is passing from the state of being a theory, and more and more becomes a feeling. Sons of our "finest nurtured," drawn into war, have mingled with the men of industry; after going through the fire together, neither class can ever slip back into its old contempt of the other. It can no longer be a matter of indifference to a cultured man to come face to face with a cripple. If formerly, on passing the man in the street, swinging the everlasting pickaxe and sweating in the old, unblushing way, the man of the world regarded him with the preoccupied glance of one who notices a stone in his path, he will do so no more; that attitude belonged to pre-war days, and is on the way to being utterly gone.

These conditions, beside bringing a new understanding to men in general, and warming the heart with a sort of universal enthusiasm, have more than a sentimental appeal. They make possible great and practical gains. For it must be understood that, with all the irreproachable energy and efficiency of charitable methods, a few people's exertions cannot do the poor and the crippled any great degree of good. Failures mark the paths of many great-hearted movements; regarding their flawless organization, we have been wont to be astonished at this. The poor and the crippled did not seem enthusiastic. The fact, no longer to be denied by the practical, is that it takes this same understanding between all men to run the cold machine. And with the force of the democratic movement, now actually coming into vital life, such success should follow as has never been met by the movements of charity unsupported by popular understanding.

The new conditions of democracy apply to the case of cripples with especial force, for the indispensable, basic principle on which the whole system of their treatment is built is the understanding attitude toward them. If the cripple is approached in the right way, it is quite possible to gain his cooperation in efforts for rehabilitation and vocational education. What can be done in this line is shown by the experiences of Cleveland.

A "Survey of All the Cripples of Cleveland, Ohio, in 1916," was made under the auspices of the Welfare Federation of Cleveland and reported by the director and associate director of Massachusetts General Hospital. It records an effort to locate and assist all the disabled workers in the city. From the point of view of service to the growth of sympathy between the crippled and society, this venture was particularly worth while. The workers sent about to interview the cripples found that, as a rule, the cripples were willing to be interviewed, interested in the report, and, above all, glad that an effort was being made to bring about an understanding of them on the part of normal people. The gathering of these statistics was a valuable work in several ways. The systematic canvass of the first district resulted in the discovery of 65 percent more cripples than had been reported to social agencies. In its effect on the class of the disabled in general, the canvass was most beneficial. It was an effort in behalf of all of them, and it brought them together in interest. It gave them a new outlook on the rest of society, too, and made them feel that the world was not closed to them. In a good many cases, it opened to them, through vocational training or apprenticeship to industries, the way to a steady job and economic independence. Most important of all, it stimulated some, who had been lacking in incentive, by acquainting them with the records of others who had overcome their handicaps.

It often takes more than a man's natural pluck and spirit to carry him over an obstacle such as a physical handicap. The ordinary individual, deprived of his right to bodily vigor, is bound to be tremendously set back. In many cases of handicap, especially of sudden disability, it never occurs to the victim to do anything but yield. It is the natural attitude. But it must be considered that, while it is real and natural, it is not necessary. Where a man's native spirit deserts him, that is the place where influence must begin. Every man has it in him to overcome, but he often has to have the possibility proved to him. Here is where the new understanding applies. This is the work laid out for other men by their new realization of being their brothers' keepers. And the way the Cleveland workers took to go about it was to set before the cripples, in conversation and in their illustrated publication, the true stories of men who had found their power over disability.

Cleveland furnished plenty of material for such inspiration. First of all, there is the story of Judge Moylan of the Municipal Court. "There were three men in Cleveland who had lost both arms above the elbow. One of these is a street beggar, the second makes a small living at peddling from a wagon and guides his horse by keeping the reins about his own neck and shoulders, the third (Judge Moylan) is a judge in the municipal court who took his bar examinations writing with the pencil held between his teeth." Along with his story, there is published in the report the account of a successful dressmaker who was so crippled by infantile paralysis that she has never walked, and operates her sewing machine from a wheel chair, using an iron poker to run it. There is the story, too, of a newsboy with club hands and feet, and of a sander in a furniture factory who lost his right arm at the age of forty-two, but fitted himself out with an appliance of his own invention and went back to his old job. There is also a one-armed mechanic who has an automobile repair shop, and a one-armed locksmith who tightens his vise with his right knee, and competes skillfully with unhandicapped workers.

By such examples, the disabled are made to feel "that it is what is left and not what is gone that matters." It is necessary to the cripple's success that his mental atti-

tude toward life and toward his disability be brought around from one of yielding to one of overcoming. And to make him attain this goal, it is necessary to revise completely the ancient attitude of the normal toward the crippled. As is brought out in the introduction to the Cleveland survey, "the cripple finds that the hardest obstacles to overcome in his whole career are often the ideas in the minds of the rest of us—our mistaken ideas about cripples. An ambitious mechanic, looking for a real job, finds himself classified with the shoestring peddler on the street, just because he has the same disability. A man with crutches hears people 'speaking up loud' to him, exactly as they would to a person with smoked glasses or to foreigners whose language they do not understand. These apparently trivial things are in reality signs of a general inability to see the man behind the handicap, and are the very things that make the cripple think he is helpless. They contribute, without doubt, towards idleness among cripples and help create the group of sensitive recluses who only wish to come out after dark, and the discouraged workman who keeps his crippled hand well hidden in his pocket."

On the reconciliation of the cripple to his new relations with the industrial world depend all his future successes —the success in physical reconstruction, in training for workmanship, in vocational placement, and in his final settlement in society. The mental attitude is more than a sentimental matter. It has a physical and an economic effect, and demands attention from the medical and the vocational standpoint. It is the most vital demand in the program for the rehabilitation of cripples that the war-born unity between the classes be cherished and made to include a new good will between the crippled and the sound.

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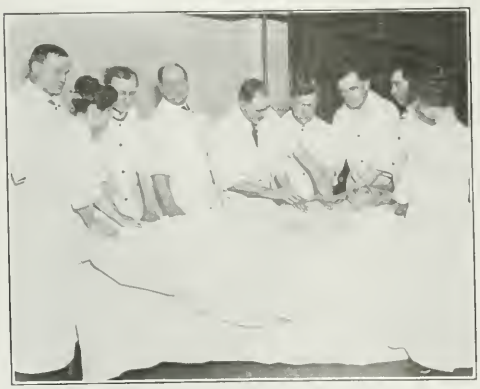
BLIND CIVILIANS RECEIVE EXPERT TRAINING IN MASSAGE

American Blind Masseur Class Established in Chicago—Inspired by Successful Work at St. Dunstan's, England—Hospital Positions Open to Class of Eight

By MRS. SIDNEY McCALLIN, Chicago, Formerly a Worker on the Staff of St. Dunstan's Hostel, London

Some months ago the initial blind masseur class of America was established in Chicago under the personal direction of Peter J. Peel, assisted by Dr. Jacob Bolotin, blind heart and lung specialist. Through the cooperation of Dr. Bolotin, eight carefully chosen blind men and women entered this class. With St. Dunstan's Hostel in London, England, the great example of successful training of the blind, such a far cry from Chicago, the teachers of this class found their pioneer days beset with uncertainties and unexpected difficulties. In the beginning Dr. Bolotin gave orally the help that was so strongly needed in his lecture course to this class, which treated with the fundamentals of anatomy and physiology. Recently a set of fifteen books in revised British Braille have been sent to Chicago for the use of the class, showing the continued interest of Sir Arthur Pearson of London, the founder of St. Dunstan's. These books are a compilation of the technical knowledge obtained from the most scientific books on this subject. The works of Hudson, Cunning, Kurre W. Ostrom, Palmer, Halleburton, Ashby, Thornton, G. F. Stout, and Dr. Justina Wilson have all been duly recognized. This set is a great acquisition, as the books augment the usefulness of Dr. Bolotin's department and are a source of great pride to the class.



From the land of the peddler, the civilian blind have entered the professional world.

Technical knowledge in hand, the class has come to Mr. Peter Peel, ready for his capable instruction in the actual operation of massage. Only the expert could appreciate the difficulties in the path of Mr. Peel, as he attempted to interpret massage to this first group of blind students, but the encouragement of success, after the first few months of uncertainty, gave the instructor the needed inspiration.

The next bend in the road brought the class face to face with a real need, the possession of a manikin, so that the already deft fingers might become more sensitive. Mrs. Lewis Louer of Chicago made the purchase of this figure possible, and so not only benefited this class but the blind masseurs of the United States for many years to come.

With the coming of the time for graduation, their teacher pronounces the blind masseurs a spectacular success, and, through his generosity, these students will have the unusual privilege and advantage of working in the scientifically equipped office of Mr. Peel under his personal supervision, until the time when he feels that they are ready to step out from under his personal care and are equipped to take up positions in Chicago hospitals which are now open for them.

Thus from the land of the peddler, the civilian blind of America have entered the gate of the professional world, and from the American blind civilian to the blind soldiers of Great Britain goes the message: "We are grateful to you over there for the thing you have shown the world, what we, over here, may do. We appreciate your splendid example and the joy of service will be ours as we minister to our fellow men."

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EMPLOYMENT OF BLINDED SOLDIERS IN GERMANY

Metal or Watch Industry the Most Profitable for Blind—Factory Preferable to Home Work Because of Association with Other Men

A report on the experience of the Württemberg Bureau of Vocational Advice in finding employment for blinded soldiers, by Mayer, in the German monthly *Die Kriegsbeschädigtenfürsorge* (Aid for disabled soldiers) brings to light many possible occupations for the blind, and new discoveries are still being added to the list.

An investigation conducted by the Württemberg bureau through personal visits to factories, talks with manufac-

turers, superintendents, and workmen, and tentative placement of blinded soldiers revealed about one hundred different operations which could be performed by the blind, and indicated the conditions under which these could be most successfully performed. These operations were found in over thirty industrial establishments, engaged in the manufacture of watches, mouth organs, electrical goods, optical goods, airships, rifles, automobiles, metal works, cardboard boxes, paper, and felt and straw hats.

The most ideal conditions for the employment of the blind were found in watch factories. The processes in watchmaking are not noisy and there are many opportunities for interesting machine work. Home work can also be given to men whose condition makes it desirable, and in some cases it is the best solution of their problem. Work with the lathe and drill press which could be performed by the blind was found in electrical plants, the manufacture of optical goods, and the automobile industry.

Operations in which blind men can work in cooperation with normal men or in groups under the supervision of a sighted head-worker were found to give them great satisfaction. Factory work is as a rule recommended over home work since it assimilates the blind among normal workers, a very important factor in their general development. If a man is obliged to stay at home, the investigation disclosed that he can earn more by working for the watch or metal industry than as a brush-maker or basket-maker.

The bureau believes that in general the blind should be paid by the time, but that when they are employed under the same conditions as sighted workers who are doing piece work they, too, should be paid by the piece. This practice is in accord with the principle of treating the disabled as much as possible like a normal man, and, with the skill which he develops, it does not decrease his earning power.

No preliminary training was found to be necessary for factory employment; the requisite skill can best be acquired at the plant itself. That the blind who have been employed in factories have given general satisfaction was testified to by the employers. The blind themselves generally declare, according to the report, that work in the factory is less tedious and more agreeable than home work and that the intercourse with other workers is in itself a distraction which they greatly appreciate.

Of the forty-eight blinded soldiers aided by the Württemberg bureau, sixteen were returned to their own or their parents' farms after having been taught basketry as an additional occupation; eight were enabled after training to set up as independent basket-makers; one was helped to start a small shop for brushes and baskets; five were placed in watch factories; six in electrical plants, and two at the Mauser Arm Works.

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INDEPENDENCE FOR THE HANDICAPPED

Soldering Cans Means a Livelihood to Many Men in France—Only One of Many Trades Open to the Handicapped—New Ones Discovered Every Day

The one-legged shoe-string vender propped on his windy corner is disappearing, and the one-legged telegraph operator or bookbinder in his office or workshop is taking his place. Artificial limbs plus training equal independence and comfort for men who would have had to eke out miserable, half-mendicant lives if they had been injured in any war but this. In England, France, and Italy—all the warring countries—the work of physical and vocational rehabilitation is going steadily on. In working out improved ways and means the Red Cross has a great mission in its Institute for Crippled and Disabled Men in New York City.

Crippled French soldiers soldering cans. The wooden leg and crutch in evidence do not interfere with the work they do.

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HOW RETRAINING IS OBTAINED

Processes Involved in Determining the Best Course for Wounded Men

The processes by which disabled men are handled through the branch offices of the Federal Board for Vocational Education are interesting. There are fourteen districts with branch offices in as many cities of the United States. Each district board is a unit for its district comprising several states. It is headed by a district vocational officer, a corps of vocational advisers, medical advisers, and clerical force. When a disabled man makes application to his district board, his army medical record is obtained and steps are at once taken to present his claim to the War Risk Insurance Bureau for compensation, for unless he has at least a 10 percent disability, or is decided a "compensable case," he is not entitled to receive training. He is then given a survey by the medical officer of the district board, a vocational adviser makes up the record of his case, ascertains what his wishes are in the way of retraining, and the record is then brought before the "case board" which is composed of the district vocational officer, the medical adviser, a prominent business man representing the employer class and accustomed to dealing with considerable numbers of men in the way of employment, a member of one of the recognized trades representing the employed class, and probably another business member of the community.

This "case board" then takes up the record as prepared by the vocational adviser, and, in many cases, brings the disabled man before the board for consultation. The "case board" makes a recommendation, and gives the first, second, and third choices to the disabled man as to the training he wishes to take. This record is then forwarded to the central office at Washington, where it is passed upon by the medical officer of the rehabilitation division, and finally must receive the approval of the director of vocational rehabilitation. When this has been accomplished, training is immediately available, if the decision of the director is favorable, and the man is at once started upon his course of training at an approved institution for the course for which he has been decided best fitted.

LETTERS TO THE EDITOR

Danville and Boyle County Hospital Association

To the Editor of THE MODERN HOSPITAL:

So far as I know, we have the only fireproof hospital in Kentucky, except the City Hospital in Louisville. We built our hospital at a cost of $45,000, and it is all paid for. The county allows us $60 a month, and the town $50. Our monthly expenses are $1,100.

We have thirty-six private rooms, four four-bed wards, and two two-bed wards. The highest *daily* average of patients we have had is fifteen. We employ three graduate nurses, three practical nurses, three maids, a housekeeper, a house man or janitor, and two cooks. In addition, we average two special nurses on duty all the time.

Our patients average two-thirds private-room patients and one-third ward patients.

Immediately back of the main building on the ground floor, connected by a ten-foot, glass-enclosed hallway with brick walls or columns between the windows, is a rear building containing two four-bed wards and five private rooms for colored patients. Above this rear building and connected with the ground floor by elevator only, are the five maternity rooms and the operating room. By putting the operating room back there, we keep the fumes of ether out of our main hospital.

The question of the number of patients each nurse can care for properly in a day without being overworked is very important, and I have taken it up with quite a number of hospital superintendents. You would be surprised at the difference of opinion on the subject. So far as I can gather, in Chicago the average is six private-room patients or ten ward patients. In some places they require the nurse to look after from ten to thirty patients if they are not seriously ill.

The lowest estimate we have had from any source for a hospital like ours is five patients to a nurse, averaging through the month, of course. We believe that this is a question which ought to be generally understood for the good of the hospital management, the good of the patients, and the satisfaction of the nurses. If there were a universal standard by which to consider this part of hospital work, I feel sure it would do nation-wide good. As things stand now, some small hospitals of which I know do not have enough help to look after the patients properly, while in other cases the nurses demand more help than any small hospital can afford to give and live.

Fig. 1. Fireproof and up-to-date is the hospital of the Danville and Boyle County Association.

Fig. 2. A cozy spot in the sun parlor of the hospital.

C. N. SMITH,
Manager, Danville and Boyle County Hospital Association, Danville, Ky.

Some Hospital Problems in India

To the Editor of THE MODERN HOSPITAL:

Your letter reached me at the time when we were in the midst of the terrible influenza epidemic. In its sweep across so many countries, it did not spare India, taking as toll many, many lives. I had been away to a conference in my own mission and on my return found several of the staff already ill. Within the week almost all were down. All the nurses on the women's side were ill, one developing double pneumonia. On the men's side all the ward-attendants had contracted influenza, one there also having pneumonia. Among the patients on the women's side there were several partly trained and two fully trained nurses, who were able to help us out, but on the men's side we could only call in some untrained coolies and direct them as best we could. Fortunately, the head compounder on that side remained well. In fact, not only the staff, but ayahs, sweepers and almost every one employed on the place was ill. In spite of this fact, however, only a few of the hundred patients contracted the disease. Four patients with very advanced cases of influenza died, and two or three already had it when admitted. Three or four had only mild attacks. This we feel was partly due to the open-air life, and the people here who have very little faith in open-air treatment were greatly impressed by this fact.

The nursing of male patients has always been a great problem here, for in most places in this country it is not considered the proper thing for female nurses to nurse male patients. This is especially true if the nurses are young and unmarried women. On the men's side we have a compounder in charge, assisted by four or five ward attendants. These men have very little or no education (one is just learning to read and write) and, although I have made several attempts to teach them, I almost gave up in despair. Anything purely mechanical they can do well, but anything requiring thought and initiative is beyond them. Unfortunately, this class is not conscientious. They will work well only while they are carefully

supervised, and they are not above bribes. They will never acknowledge themselves in the wrong when reprimanded, but will take the scolding and punishment which one metes out to them because one is angry or has a grudge against them. If they consider the punishment too severe, they leave; and, because of the fear of infection and caste prejudice, it is no easy matter to secure helpers. When left on night duty, they will curl themselves up on the floor and take a nap, and when I catch them sleeping it does not feaze them. They seem incapable of realizing the responsibility of their post.

Two years ago four young men of some education, whose cases were arrested, but who were advised to remain in this climate, expressed a desire to take up nursing upon the advice of the doctor. I commenced to train them for work for this institution, and, after two months of theoretical and practical work, they became quite useful. On my return from the hills, where I had spent a month of the hot season, I found that two of them had left, the first to return to his teaching and the second because he did not feel strong enough. A few weeks later one of the two remaining boys asked permission to go into the town, a distance of four miles up and down hill. He was given permission to go, on condition that he would perform the journey there and back in a jutka. Being unable to secure a jutka for the return journey, he decided to walk. The next day he had a hemorrhage from which he never recovered. The fourth lad remained with us about a year and half. His work was not satisfactory. He was sulky and would refuse to do any little extra work required of him, although he was quite strong enough to do it. We kept him on for his own sake, always hoping for a change, but when one day we discovered that he was stealing medicine from the institution and sending it to his father, who was making money out of it, we felt that our only course was dismissal. All this can not help but be discouraging, especially during the first years. We come out here with high ideals and attempt in a short time to lift the profession here to the same plane as it holds in the West. This is not possible, and, although I have spent five and a half years in the country, it is hard for me to adapt my Western ideals to Eastern facts. However, nursing superintendents throughout India are working together to raise the standard of nursing, and, although very little has been done for the training of male nurses, we do not despair. The training of women nurses, too, is still far below our standard of efficiency, but a better class of women are now taking up nursing as their life work.

Another great problem has been the laundry question. As you probably know, this work is done by a particular

Fig. 1. Water carts bring water from a hilltop two furlongs away.

Fig. 2. Interior view of chapel which is also used as lecture hall

caste called the "dhoby" caste. The clothes are taken to some stream or tank and there they are beaten upon a flat stone raised just out of the water. In the first place, they are not always thoroughly washed, and then, too, the wear on them is very hard. The irregularity was also a trial, for often we waited two or three weeks for our clean clothes. We finally decided to establish a laundry of our own, which, I assure you, caused considerable comment. We began in a very crude way, with the hope of improving things in time. In the first place, we got the assurance of two Christian men that they and their wives were willing to learn and do the work. This was a decided step, but we had to assure them that they would be called "laundry men" and not "dhobies." We then built three cement tubs, two of them 2 feet high and 3 feet square, and one 4 feet high and 3 feet square. The latter was for soaking the clothes and had a wooden cover fitted on it with a lock. These tubs were built in the open, with no roof overhead, near the bed of a stream which has running water during the rainy season. We purchased two Wendle washers, some blueing, fuller's earth, soda, ammonia, a couple of buckets, and a mud pot. Two large brass vessels had been given by friends, and these we used over open fireplaces to boil the clothes. One Sunday evening in August the tub with the cover was filled with water, ammonia added, and the clothes from one ward which had been previously disinfected in the sterilizing room by formaldehyde vapor were soaked. The next morning many gathered to see the beginning of this wonderful laundry, and all with one accord predicted failure. As they stopped to inquire from time to time during the morning they would ask the men at work, "Are the clothes coming clean?" and the reply was always the same, "Wait and see." In the evening, when a nice large bundle of clean, sweet-smelling clothes was brought up, pessimism vanished, and since that time we have continued to do our own laundry work. A floor and roof have since been built about the first tubs, other tubs have been added, and better fireplaces built under the roof. The unwalled building is large enough to dry the clothes in rainy weather, and we hope to add a room at one corner at a later date. Thus far all the work has been only rough-dried. My next task is to teach our helpers how to iron and then to complete the process by washing, starching and ironing. In this desultory manner I could go on writing endlessly, for this institution is of much interest and connected with so many missions. My services have been given to this work by my own mission for this term in India.

AGATHA TATGE, R. N.,
Union Mission Sanatorium, Madanapalli, S. India.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.
Director of the Boston Dispensary.

Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

THE CLINIC EXECUTIVE IN AN OUT-PATIENT DEPARTMENT

Keeping Doctor and Patient Together Until Course of Treatment Is Completed Her Chief Function—How She May Prove of Valuable Assistance to Doctor

By BERTHA CHACE LOVELL, Social Worker, Boston Dispensary, Boston

For better or for worse, some form of dispensary or hospital out-patient department seems to have become a recognized part of the machinery for community health. Even though poorly equipped and run, it is probably better than no medical facilities at all; but how much better it is depends entirely upon the standards of its physicians and administrative officers. That these standards have been markedly rising during the last few years, and that new conceptions of the functions of a clinic open to the public at a minimum cost have been formulated, is apparent even to a superficial observer.

In no way, perhaps, is this rise of standards more marked than in the stress that is now being laid on the importance of the completion of a course of medical treatment, once it has been started. It is perfectly true that with some diseases the loss of the patient before the doctor has discharged him is not essentially serious. It may mean only a slightly delayed recovery or a little less adequate education of the patient or his family in improved hygiene. Possibly we still feel we can afford to ignore both these limitations. But most untreated disease we cannot afford to ignore.

The problem, then, is to keep doctor and patient together until the doctor has had a chance to do the job the patient has asked him to do—either to cure him or, if there is no cure, to tell him how to make life as little of a burden as possible. The doctor, presumably, will do his share of the staying together, provided the out-patient department gives him some equivalent for his services—if not in money, in opportunities for practice, for research, or for teaching; and he is encouraged to stay, if he can have these opportunities, without wasting what seems to him an unreasonable amount of time in the clinic.

Here is the point at which the clinic executive enters. She appreciates the value of the doctor's half hours, and she knows how to save them. Because she has a system intelligently planned and efficiently run and a well-developed social consciousness—also (unless the clinic patients number less, say, than twenty) a clerk to handle the routine work—she can accomplish much toward speeding up the clinic.

First, she can see that Patient 2 follows immediately upon the heels of Patient 1 to the doctor's desk, and that both Patient 2 and No. 1 belong to that particular doctor's following. Secondly, she can see that patient and medical card arrive together, and—if she is a paragon of a clinic executive—she will be sure that no medical card reaches the doctor's eye without its full quota of laboratory reports. She will take charge of the machinery of transfers to other clinics or to such departments as the x-ray. She will be on hand every day, always, to give her assistance in straightening out the tangles that arise over forgotten or obscure points of institution policy that may necessitate a visit to head social worker or superintendent or director, or all three. And it is part and parcel of her job to meet emergencies, from a case of hysteria to an only-too-narrow escape from a childbirth within the clinic itself.

Even in aspects of the clinic work that seem at first glance to be the prerogative of the doctor, the use of the clinic executive may prove to be expedient. In one clinic for the treatment of women with gonorrhea in a large eastern out-patient department, the clinic executive explains to every woman who receives a sheet of instructions for home treatment ("Routine 1," "Routine 2," etc.) how these are to be followed, and repeats and reiterates until the woman understands—understands, that is, not merely in a general way, but in a way that applies to her own method of living, whether it be in a hall bedroom or in a family-of-twelve tenement. If the woman did not comprehend these instructions, the doctor's medical interest in the case could hardly be of long standing. Yet, if he attempted to give the explanation himself daily, the resulting sacrifice of his lunch hour would probably seem to him of minor importance in comparison with the sacrifice of his equanimity.

As unnecessarily prolonged interviews with patients can be avoided if a doctor has a clinic executive at his elbow, so can unnecessarily frequent interviews with relatives and friends of patients, and with over-zealous social workers outside the clinic. The clinic executive acts as a buffer. She holds off from the doctor every unnecessary interruption, letting in to him only those whose need of him is evident. And she is interpreter, not only to him but also to those denied access to him.

When a social problem rises to obstruct medical treatment the clinic executive and the doctor can be in conference together on it from the moment of its inception. And because they are both integral parts of the clinic and each understands the other's responsibilities and routine, they can continue their conferences from day to day, and from week to week sometimes, as the medical and social action on the case progresses, without their joint parleys interfering noticeably with the smooth running of the clinic processes.

It is this phase of the work of the clinic executive that we may expect to see developed on a much larger scale in the future. In one sense only can it be said to save the doctor's time. It enables him to get data on his cases which make really scientific treatment on his part possible, and to get it without any appreciable effort. For it is the clinic executive, not the doctor, who will write to hospitals and to other medical men for past medical histories, and who will consult with those who have had previous experience with the patient and know her type of physical and mental reactions. On the other hand, the presence of the clinic executive will perhaps in the long run mean that the doctor will spend even more time in the clinic. But it will be time spent in a more intensive study of the individual patient. It will not be wasted.

It is, then, not an alarmingly difficult matter to keep the doctor in the clinic, even if, to do it, the institution must safeguard him from distractions.

But to keep a patient in the clinic is a proposition of a much tougher fiber. An exacting individual, perhaps, he is, but he makes at least six demands upon an out-patient department: (1) ordinary creature comforts in the building itself; (2) no exaggerated waits in the ante-room of the clinic; (3) a square deal as to the order in which he is admitted to the doctor; (4) an understanding of the medical situation that meets his intellectual and emotional needs; (5) such arrangements as to payment or non-payment of fees as can be fitted into his scheme of life; and (6) a firm but persuasive hand stretched out from the clinic to draw him back if he stops his treatment too soon.

It is not for the clinic executive to provide the creature comforts in the clinic. But no one is at a better point of vantage than she to appreciate how fully or how poorly the institution is providing for the personal well-being of the patient while he is within the institution walls. She knows whether there is a secluded place for a young mother to nurse a baby she has brought with her, whether there is enough bench room so that the patients do not elbow one another uncomfortably on a hot day, whether there is a place where an exhausted woman may lie down in private, whether there is a satisfactory arrangement for a patient who has had a severe reaction after an administration of one of the arsenical compounds, and whether intimate conversation with doctor and with social worker can be carried on behind closed doors or only in the most obvious publicity.

To eliminate undue waits in the clinic is again only in part the function of the clinic executive. But, because she is in the clinic day in and day out, she knows how the delays are being caused. Perhaps there is an insufficient number of doctors for the size of the clinic, or the doctors are arriving so late that the clinic stretches out to the point of attenuation. Perhaps the doctors are held up by lack of sufficient number of examining rooms and nurses to disrobe their patients, and by inadequate apparatus and equipment. It may be that the medical cards are slow in arriving from the record room. Whatever the cause, the first step toward the prevention of delay is a realization by the administration of the institution that it exists.

Quite definitely, however, within the province of the clinic executive is the supervision of the patient's admission to the doctor in his proper turn. She superintends, either personally or through the clinic clerk, the entire process of the clinic admission, and it is her fault if this is a failure. Fortunately, she understands that justice is relative rather than abstract, and she knows that a man who has "asked off" from work for an hour and a woman who has a sick child at home should take precedence over, say, a care-free girl.

If the doctor's time is limited, that of the clinic executive —theoretically at least—is not, and it is her responsibility to see that the patient's demand of an adequate understanding of the medical situation is met. The doctor gives the essentials—briefly or at length. The clinic executive, in the interview which she has with every new patient—ideally, it would be with every patient—before he leaves the clinic, fills in the gaps in the patient's mind, or, if the gaps are too extensive, calls in the doctor's aid. The clinic executive needs a semblance of leisure. Her attitude should invite question and confession. She will get both if she is ready for them, and in such a way as to give her a very real insight into the factors that, disregarded, will work directly against the patient's recovery.

No factor will appear more frequently, probably, than that of the patient's lean purse. In a study made recently in a syphilis clinic it was found that 75 percent of the patients who had stopped their treatments before the doctor had discharged them had done so because they had felt unable to continue to meet the cost of the treatment, in fees, in drugs, in carfare, and in loss of working time. Surely, unless someone in the institution is at liberty to remit fees when the patient is without question unable to make full or part payments, it is useless to run a clinic for any but folk of ample and assured income.

And the only person who knows beforehand that the patient will have to stop his visits to the clinic, unless he can be treated without charge, is the person who has talked with him about his finances—not once only, when he was first admitted to the institution, but from time to time in the come-and-go of the clinic. The aim of the clinic executive will be a working knowledge of the budget of every clinic patient.

Needless to say, there will be many instances in which the remission of the out-patient department fees will go only a small fraction of the way in meeting the patient's financial difficulty. But that, as Kipling would say, is another story. And a good clinic executive will toe a sufficiently straight line so that she can, at any moment, if more problems arise than she can swing unaided, lay her hands on a good case worker.

The last demand a patient makes upon the institution is one that apparently has gone unheeded longer than any other. Perhaps it is only just now being recognized as legitimate. He must, if he is the average patient, be "followed up." The most effective part of the "follow-up," of course, is that done in the clinic itself before the patient leaves it. The impression made upon him by the doctor and the clinic executive and the fact that continued treatment is made possible for him by means of adjustment of finances, clinic hours, etc., is what really counts. But the letters from the clinic, and sometimes the calls from the clinic, are, unfortunately, also indispensable. A really workable system of attendance cards that automatically brings a patient into notice as soon as he becomes overdue, and a series of carefully phrased form letters can be considered an essential part of a clinic executive's "fourteen points." She knows the individual patient to whom the card is sent, and, whether she actually handles the pen that addresses the letters or not, she makes the follow-up work a human process rather than a mechanical one.

For to her the mechanism of the follow-up work—quite as much as the attention to the demands of the patient, and the effort to render the doctor's time in the clinic worth while—is only a phase of a larger plan. Conscientiously and consistently she is a part of the movement to make the out-patient department a dominating factor in the achievement of public health. And, because she is an executive who sits in the half-way house of the interpreter, she is, she believes, a necessary part.

* * * *

NEW DRIVE ON VENEREAL DISEASE

Exhibition to Show Evil Effects of Disease and Means of Stopping Its Spread—Creditable Work Done Among Discharged Soldiers and Sailors

With the change of its name to Illinois Social Hygiene League, the venereal disease organization formerly known as the Red League plans to open a new drive against social diseases in Chicago and Illinois with a public exhibition

held in connection with its annual meeting. The exhibition will vividly illustrate the evil effects of venereal disease, as well as the proper means to prevent its spread, and will probably include a public showing of the two government social hygiene films, "Fit to Fight" and "The End of the Road." A series of four introductory letters will be sent to 6,000 employers of labor, and framed signs for use in shops and factories will be distributed.

Soldiers and sailors recently discharged are given free treatment for venereal diseases at the dispensary of the Illinois Social Hygiene League, 118 W. Grand Avenue, Chicago, according to a plan previously entered into with the State Department of Public Health. More than one-third of the hundred or so patients received monthly at the dispensary are discharged soldiers and sailors who have been referred to the League for treatment by the American Red Cross and the U. S. Public Health Service.

Aside from the soldiers, nearly 1,000 men, women and children have received treatment at the dispensary, and over 5,000 treatments have been given since the opening of the dispensary in May, 1918. At the present time 700 monthly treatments are being given, many of them to free patients. The staff consists of nine physicians, three of whom are women. Four clinics for women are held weekly.

The total monthly disbursements of the dispensary average $1,500, only one-third of which comes as fees from patients, the remainder being raised by contribution. A campaign for funds to support the increased activities of the League is announced. In order to permit the taking over of increased space to continue the free treatment of soldiers, sailors, and marines and prevent them from infecting their families at home, the sum of $1,000 is needed.

SOME "DON'TS" IN HOSPITAL BUILDING

Profit by the Experience of Others—These Suggestions, Picked Up Here and There, May Save You a Mistake

Don't build on a large attic, not reached by an elevator, for storage room; it takes up good space, which could be put to a better use.

Don't make your basement pantries so small that stock goods have to be hauled to the aforesaid attic for keeping.

Don't believe that a small amount of ceiling radiation will keep the basement warm or keep the servants who live in it satisfied, or produce the right temperature for x-ray equipment, plate development, or for the operator's feet in winter.

Don't put the maternity room over an occupied bedroom.

Don't forget to put a drain or two in your sterilizing and operating rooms, and have the walls of the kind that will not peel off when steamed.

If you plan to have the doors wide enough to wheel your bed patients out on the sun porches, *don't* forget to have them wide enough to prevent the bed from taking a portion of the woodwork along with it.

Don't have your steam plant in the building, if you can help it, especially under rooms occupied by patients. Pounding on pipes when repairs are necessary, the throbbing of steam, and the rising soot scrape the nerves of normal people and are annoyances never borne by patients patiently.

Don't have walls that cannot be cleaned.

There is no good in arguing with the inevitable. The only argument available with an east wind is to put on your overcoat.—James Russell Lowell.

BULLETIN OF THE AMERICAN HOSPITAL ASSOCIATION

Offices:
728 Seventeenth Street, Washington, D. C.
308 Anisfield Building, Cleveland, Ohio
Monthly Bulletin issued by the Executive Secretary
308 Anisfield Building, Cleveland, Ohio
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Meeting of the Board of Trustees

At the meeting of the board of trustees of the American Hospital Association in Washington, D. C., April 25, 1919, it was voted upon a proposal made by the American Red Cross that the American Hospital Association act as agent in distributing to hospitals a certain amount of gauze and other material, now in possession of the Red Cross and not likely to be used for war purposes, provided, however, that the association limit its work with reason to the collecting and preparing of lists and other data concerning hospitals and that it assume no obligation for expense incidental to storage, insurance, distribution, or transportation.

The legislative committee was instructed to draft a legislative proposal for Federal incorporation of the American Hospital Association, and to cooperate as far as possible with existing committees and other organizations relative to the proposal that Congress be urged to enact legislation providing for a national department of health.

The board of trustees adopted the policy of establishing service bureaus or departments of the association as a general policy, and recommendations of the committee on out-patient work to establish a service bureau on dispensaries and the community relations of hospitals were approved.

The president reported on the conference on hospital standardization to which he had been appointed a delegate at the meeting of the board of trustees on March 17, 1919. The following resolution was offered and accepted:

Resolved: That the American Hospital Association accept the responsibility of cooperation with the American Conference on Hospitals, organized in Chicago April 21, to the extent of complying with the request of this organization for the appointment of two delegates by the president to represent the association, to carry out joint programs on the subject of hospital standardization with the American Conference on Hospitals at the annual meetings and in other ways to recognize that the work of the American Conference on Hospitals is to develop and express ideal hospital conditions and minimum standards. It is understood that the expense of this work is at present to be borne by the American Medical Association, except the personal expenses of the delegates, which are to be borne by the various organizations appointing delegates.

The secretary reported that 110 hospitals had applied for institutional membership and 107 applications had been approved by the committee; that office records for institutional membership had been approved and were

being printed; that the membership certificates had been approved and would be mailed shortly to the hospitals with the request that they appoint their delegates.

Service Bureau on Dispensaries and the Community Relations of Hospitals (Plans Approved by the Board of Trustees, April 25, 1919)

PRESENT GROWTH OF ORGANIZED MEDICINE

Interest in all kinds of health work is increasing throughout the country. More and more communities are studying their own needs for health service and for the medical care of that part of their population which cannot afford to pay for all it requires. Many hospitals, public health departments, and voluntary health or charitable organizations, are thus seeking to ascertain what is locally needed in the way of more hospital beds, in establishing or enlarging dispensary service, or in advancing or improving other forms of medical health work.

Dispensaries have grown with especial rapidity in recent years. In 1900 there were about one hundred dispensaries in the United States, according to the census bureau. Today there are fully three thousand. Dispensary standards have advanced. There is an increasing demand for information and advice concerning the construction, equipment, organization, and management of outpatient institutions. The same condition is found in social service work in hospitals and dispensaries.

OBLIGATION OF AMERICAN HOSPITAL ASSOCIATION

Demands of this kind are arising from within the membership of the American Hospital Association, and, as the primary national body covering the field of organized medical care, it seems fitting that the association should be equipped to render all advice and assistance possible along these lines. The effect of providing some definite service to its members, or to non-member organizations, or to communities interested in hospital and dispensary work, would tend not only to enlarge and strengthen the American Hospital Association itself, but to advance the scope and standards of the field of service in which it is interested.

Therefore, it is proposed that the American Hospital Association establish a service bureau, offering expert advisory and consultant service as to the establishment or conduct of dispensaries, and as to the needs and organization in a community of the various forms of hospital, dispensary, and medical or health services.

SCOPE OF SERVICE

Such a service would be offered primarily to the organizations which are members of the association, but would also be available, on certain terms, to public health or other organizations which are not members. In more detail, the scope of the proposed service would include such matters as the following:

1. Investigation or survey of communities to determine and recommend the extent and character of need for hospital beds of various types and the manner in which those facilities should be organized in relation to one another and to the public health department and to the social service facilities of the community.
2. Investigation of particular institutions to ascertain and recommend the best forms of establishment or development of out-patient clinics or social service functions.
3. Advice and recommendations, or consultant service, concerning the construction, organization, or management of dispensaries or out-patient departments of hospital.

ORGANIZATION OF BUREAU

This advisory and consultant service should be organized as a service bureau of the American Hospital Association, under the direction of the trustees. The general secretary of the association would, ex-officio, be general executive officer, as of all other branches of the administration of the hospital association.

STAFF

There should be designated by the trustees one or more consultants to serve as the staff of this bureau, in addition to such service as might be rendered by the secretary of the association and his office. These consultants may be engaged for a definite part of their time, or be compensated for time spent by them.

BRANCHES OF SERVICE

The service rendered by the bureau would include: (a) such advice as could be given by mail from the office of the association, or by the consultant staff of the bureau to whom the request would be referred, and (b) personal service, including visits to institutions or communities by the secretary of the association or by one of the consultant staff of the bureau.

METHOD OF ADMINISTRATION

Assignments of calls for the aid of the bureau to the members of the consultant staff would be made by the secretary of the association according to rules prescribed by the trustees. The organization requesting the service may suggest the name of the member of the consultant staff which it desires. Report should be made by the secretary in writing to the trustees once every three months, of all requests for services received, with the assignments made, time taken, and the financial income and outgo.

Members of the consultant staff of the bureau receiving requests directly should be under obligation to forward such requests to the secretary of the association before any response is sent to the inquiry.

FINANCES

The service of the bureau should be free to members of

Hotel Sinton, Cincinnati, Ohio

the association, except that charge for the actual traveling and other expenses of the consultants are to be paid by the organization or organizations receiving the service. To non-members of this association, the trustees shall fix such rates as seem proper. All fees received for the services rendered by the bureau should be paid into the treasury of the association and all compensation paid to members of the staff of the bureau and should be paid from it.

PUBLICITY

Announcements of this service bureau should be prepared, printed in the bulletin of the association, in THE MODERN HOSPITAL, in other suitable professional journals or magazines, and in a leaflet for general circulation.

1919 Convention

HOTEL RESERVATIONS

Members of the American Hospital Association and American Dietetic Association planning to attend the Cincinnati convention, September 8-12, 1919, should make hotel reservations at an early date. Hotel Gibson is the headquarters of the convention. The general sessions and the majority of the section meetings will be held in this hotel. Several section meetings will be held at the Cincinnati General Hospital and the University of Cincinnati Medical School. A number of section meetings will also be held in the Hotel Sinton which is located directly across the street from the Hotel Gibson. Following are the rates of the Hotel Sinton which are invariably adhered to and never advanced in connection with conventions:

OUTSIDE ROOMS

One person—	
Room with bath	$3.50 to $6.00
Two persons—	
Room with bath	4.50 to 7.00
Room with bath and twin beds	5.00 to 10.00
Two connecting rooms, bath between	7.00 to 10.00
Three persons—	
Two connecting rooms, bath between	8.00 to 12.00
Two connecting rooms, bath between, one with twin beds	10.00
Four persons—	
Two connecting rooms, bath between	9.00 to 12.00
Two connecting rooms, bath between, one or both with twin beds	12.00

COURT ROOMS

One person—	
Room with bath	2.50 to 3.00
Room without bath	2.00 to 2.50
Two persons—	
Room with bath	3.50 to 4.00
Room with bath and twin beds	5.00
Room without bath	3.00 to 3.50
Two connecting rooms, bath between	4.50 to 6.00
Three persons—	
Two connecting rooms, bath between	6.00 to 7.00
Two connecting rooms, one with bath, one with twin beds	8.00
Four persons—	
Two connecting rooms, bath between	7.00 to 8.00
Two connecting rooms, both with bath, one with twin beds, but outside rooms	11.00

CORNER SUITES

Parlor, bedroom, and bath	10.00 to 15.00
Parlor, dining room, bedroom, and bath	25.00 to 30.00

Additional bedrooms may be connected with the ten to fifteen dollar suites.

The hotel is conducted entirely upon the European plan. All rooms without private bath have lavatory with hot and cold water and free use of detached bath. When requesting reservation, it is important to state the number for whom accommodation is desired, the kind of rooms preferred, the date, and if possible, the hour of arrival.

Members of the association will receive literature concerning the city of Cincinnati, its hotels, its meeting places, its amusements, and places of interest. Complete information concerning the convention will be published also in the July and August bulletins of the association.

Commercial Exhibit

Fifty percent of the commercial exhibit space of the American Hospital Association and 25 percent of the space of the American Dietetic Association has already been sold. The list of exhibitors and spaces assigned each are as follows:

	Space No.
Thompsons Malted Milk Co	3
S. Gumpert & Company	1–2
J. Hungerford Smith Company	12
Royal Baking Powder Company	13
Mellins Food	24
Meinecke & Company	Room II
Thorner Brothers	Room IV
Lewis Manufacturing Company	Room V
American Laundry Machinery Company	Room VI
Coast Products Company	Room VII
J. B. Ford Company	101
J. B. Lippincott Company	103
Born Steel Range Company	104
Aluminum Cooking Utensil Company	105
Life Saving Devices Company	106
Klearflax Linen Rug Company	107
Pfaudler Company	110
Holtzer Cabot Electric Company	111
Columbus Aseptic Furniture Company	201–202
Genesee Pure Food Company	203
Max Wocher & Sons Company	204–5–6
Albert Pick & Company	207–8
Horlick's Malted Milk	301
Randal Faichney	303
F. A. Hall Company	304–5
Bromley Merseles Company	306
H. W. Baker Linen Company	307
F. S. Betz Company	310–11
Safety Anesthesia Company	313
Randles Manufacturing Company	401
Kimberley Clark Company	402

Institutional Membership

The institutional membership campaign will be pushed forward rapidly. A communication has been sent to the 110 institutional members of the association whose applications have been approved by the membership committee which states that institutional members are entitled to appoint as their representatives in the association any person or persons who are eligible to active or associate membership in the association. Of these no more than three, including the superintendent, shall have all the privileges and authority of active personal members and shall be so designated; others so appointed shall be associate members. Active personal members are those who at the time of their election are trustees, superintendents, or assistant superintendents of hospitals, or members of the medical staffs of hospitals. Associate personal members are those who at the time of their election are heads of any executive administrative or educational department of a hospital, except those already mentioned, or contributors to or members of any association or board the object of which is the foundation, maintenance, or improvement of hospitals, or the promotion of organized charities for the improvement of health.

Information Concerning the American Dietetic Association

The American Dietetic Association will hold its second annual meeting in Cincinnati, September 8-12, 1919. The headquarters will be at the Gibson Hotel, which is also the headquarters of the American Hospital Association. The registration office, commercial exhibits, and the majority of sessions of the meeting will be on the mezzanine floor.

Two meetings of the executive committee have been held in New York City, one in January and one in April. At the last meeting, plans for the program were made as follows: The forenoon sessions on Tuesday and Wednesday are to be devoted to general meetings and round tables; the afternoon sessions will be devoted to specific subjects; the business meeting will be held Friday morning and a general meeting Friday afternoon.

Some points for special discussion are The Dietitian in Metabolism Work, Miss Minnie Phillips, Iowa University, Iowa City, chairman of the committee; The Teaching Dietitian, Miss Katherine Fisher, Teachers College, Columbia University, New York, chairman of the committee; The Social Welfare Dietitian, Miss Blanche Joseph, Chicago, chairman of the committee; The Administration Dietitian, Miss Emma Smedley, Philadelphia, chairman of the committee.

NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor,
GEO. W. WALLERICH, Associate Editor,

Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast Avenue, Oak Park, Illinois.

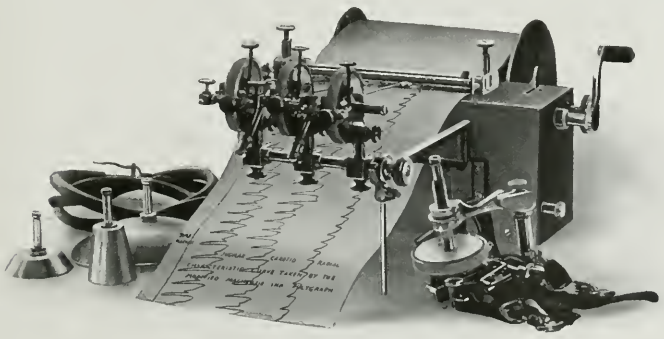
American-Made Ink Polygraph

During the last two years the demand for English-made Mackenzie polygraphs was more urgent than ever before. Regardless of the demand, however, all during the war only a few of these instruments were permitted to be exported to this country from England, because the British government needed practically all the instruments of this type that could be produced.

The demand from some of our specialists for this imported instrument was very insistent, and in some cases it was impossible to make our specialists believe that a most excellent instrument of this type is being manufactured right here in our country and has been on the market for a number of years.

In the accompanying illustrations the latest model of the American-made Mackenzie ink polygraph is shown. It is still impossible to supply the original English-made polygraph, but we know from experience that it is not necessary to put off important work on this account, because the instrument illustrated here is giving excellent service to many American scientists whom it was possible to induce to give the home product a trial.

It is well known that polygraphic tracings give information about the action of the right side of the heart and the condition of the heart muscles, especially the sino-auricular bundle. A record made by an ink polygraph is practical information and has an advantage over the smoked paper apparatus in that it avoids the uncleanly smoking and handling of the paper before taking records and the necessity for fixing them in a shellac solution for preservation.



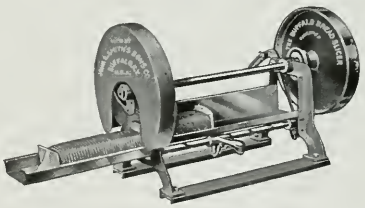
American-made ink polygraph

The most important parts of the ink polygraph may be described as follows: The casing A containing the paper rolling and time-marker movements; the writing tambours B B B with supporting bar C; wrist tambour D with attachment E for strapping on to wrist; paper-roll bracket F; pens G, G1, and G2, and time-marking pen H. The casing A contains the driving mechanism, either an electric motor with an electric time-clicker or a spring movement. The paper feed roller may be rotated at various speeds. The aluminum writing pen, called the time-marker, vibrates at a constant speed of 300 per minute, an equivalent to 1/5 of a second. The electric instrument is supplied with batteries of a standard make (Eveready 734), which can readily be replaced when exhausted. Should it be desired to run the motor from regular electric service wires (110 volts), a rheostat or series-lamp circuit must be used, or the instrument may be operated by a storage battery of about 10 volts.

Bread-Slicing Apparatus

Although the war is over and our soldiers are being demobilized faster than anyone had expected, the demand for labor of every kind is unabated and the cost of getting the work done satisfactorily is higher than ever before. It is, therefore, necessary for the managers of institutions to be continuously on the look-out for labor-saving machinery to keep their institutions at the highest point of efficiency with the least possible number of employees.

A comparatively inexpensive machine, which may not be generally known, is a bread slicer, and we were not aware that such a device could save such a great deal of time and at the same time so much bread as well, until we recently saw one at work in a restaurant.



Buffalo bread slicer.

This particular apparatus is marketed under the name of the "Buffalo Bread Slicer," and is made so that it will cut bread that has just come out of the oven, and cut the loaf down to the last slice, thus saving from two to three slices on every loaf. The machine will cut about two hundred slices a minute, of any thickness, automatically, from ⅛-inch to ⅞-inch, stacking the bread at the same time, thus saving a great deal of time, as well as preventing the handling of the slices, a circumstance which renders it exceedingly sanitary.

The knife is so well guarded that it is impossible for operators to cut their

fingers. The knife can be easily sharpened in a few seconds with a small stone which is furnished with the machine.

Self-Retaining Retractor for Use in Operative Bone Work

The so-called "open method" of treating fracture cases has brought electrically driven bone-surgery engines rapidly to the front, and today there are probably few hospitals of any consequence where one type or another of these apparatus has not been used.

There is no longer any question about the usefulness of these apparatus for preparing autogenous bone grafts,

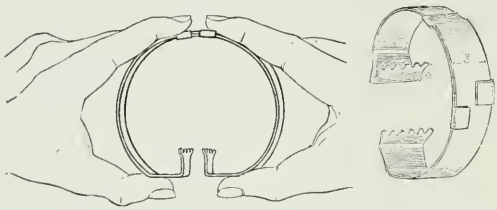


Fig. 1. (To right.) Lowman and Pratt's self-retaining retractors.
Fig 2. (To left.) Showing application of retractor.

but it is a fact that in the hands of an inexperienced operator there is a certain amount of danger in their use, especially to the assistants.

To overcome this danger, Maj. J. B. Lowman and Capt. K. B. Pratt of the U. S. Base Hospital No. 38, devised the retractor illustrated below, and it is reported that great satisfaction is being derived from their use.

The retractor is made of two half circles of spring steel, fixed together by lateral clamps in the manner shown in Fig. 1. The tooth portions are wider than the rest of the bands, in order to give greater and more even retraction. The lateral bands act as a simple friction block, whose function is increased by any force exerted upon the two parts of the retractors, except exactly in the direction of its lock, by means of which the retractor is opened and closed (see Figs. 2 and 3).

In order to apply the retractors, the limb is lifted up and the retractor prongs sprung sufficiently to slip on from below and to lightly encircle the limb with the toothed edges placed on either side of the proposed line of incision.

It is necessary to use two retractors, and the toothed edges are made to engage to the depth of the wound, until the desired exposure is accomplished. The cut surfaces are beforehand covered by towels laid lengthways, and when the retractors are properly placed any unevenness of the protecting toweling is corrected.

When the operation is finished, the retractor is removed by pulling upward on the horizontal base of one-half, and pushing backward in a circular direction on the locking end of the other half, on the same side of the limb.

Fig. 3. Showing application of retractor.

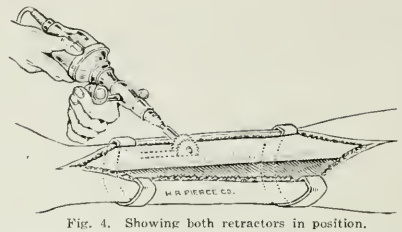


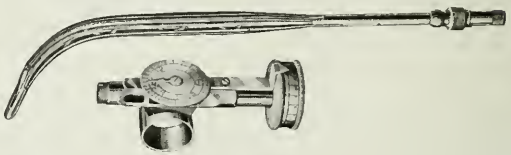
Fig. 4. Showing both retractors in position.

Figure 4 shows the retractor in position, without the toweling in place.

Pressure Indicator for Kollman Dilators

Until recently Kollman dilators in the hands of the medical profession were equipped with only one scale (French) which indicated the dilation and with one knurled knob by means of which the dilator was opened and closed.

The new American made dilator, as illustrated, has a pressure gauge in addition. For this purpose the knurled head is made in two parts, one of which is directly fastened to the dilator handle, as it was in the old design. The other movable part is coupled to the former by a clock spring, which in turn is concealed in the hollowed-out fixed part of the knurled head. By turning the outer



American made dilator.

knurled knob, one turns one end of the clock spring, thereby increasing its tension until this tension becomes so great that it overcomes the internal resistance of the dilator.

If there is any angular dislocation of the parts of the knurled knob—one against the other—it is indicated by a scale, and the amount of the pressure causing this dislocation can be read by means of a pressure scale on the outer part of the knurled head.

A pointer is attached to the dilator handle in such a way that it easily permits reading the pressure scale.

The inner part of the knurled knob has a stop, which is arranged in such a way that the spring is always held under tension. This tension of the spring just overcomes the internal resistance of the dilator and handle.

In practical operation this is shown by the fact that there is no displacement or torsion of both parts of the knurled head in relation to one another when the dilator is opened or closed. The internal resistances are mainly composed of friction between moving parts of the dilators and of the force necessary to bend the lateral blades; this force is considerable in the Guyon dilator but is much less in the straight Kollman dilator.

Steel Pins and Large Spools of Thread Mean Economy

You will find it much cheaper to buy the large spools of thread for your sewing room. Safety pins are used a few times and disappear. Buy the steel instead of the brass pins. They fill the purpose just as well.

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